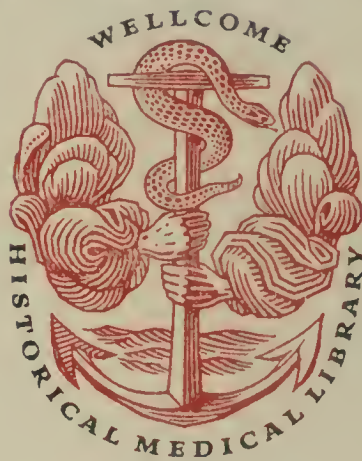


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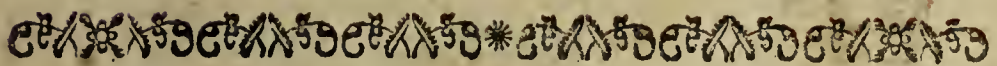
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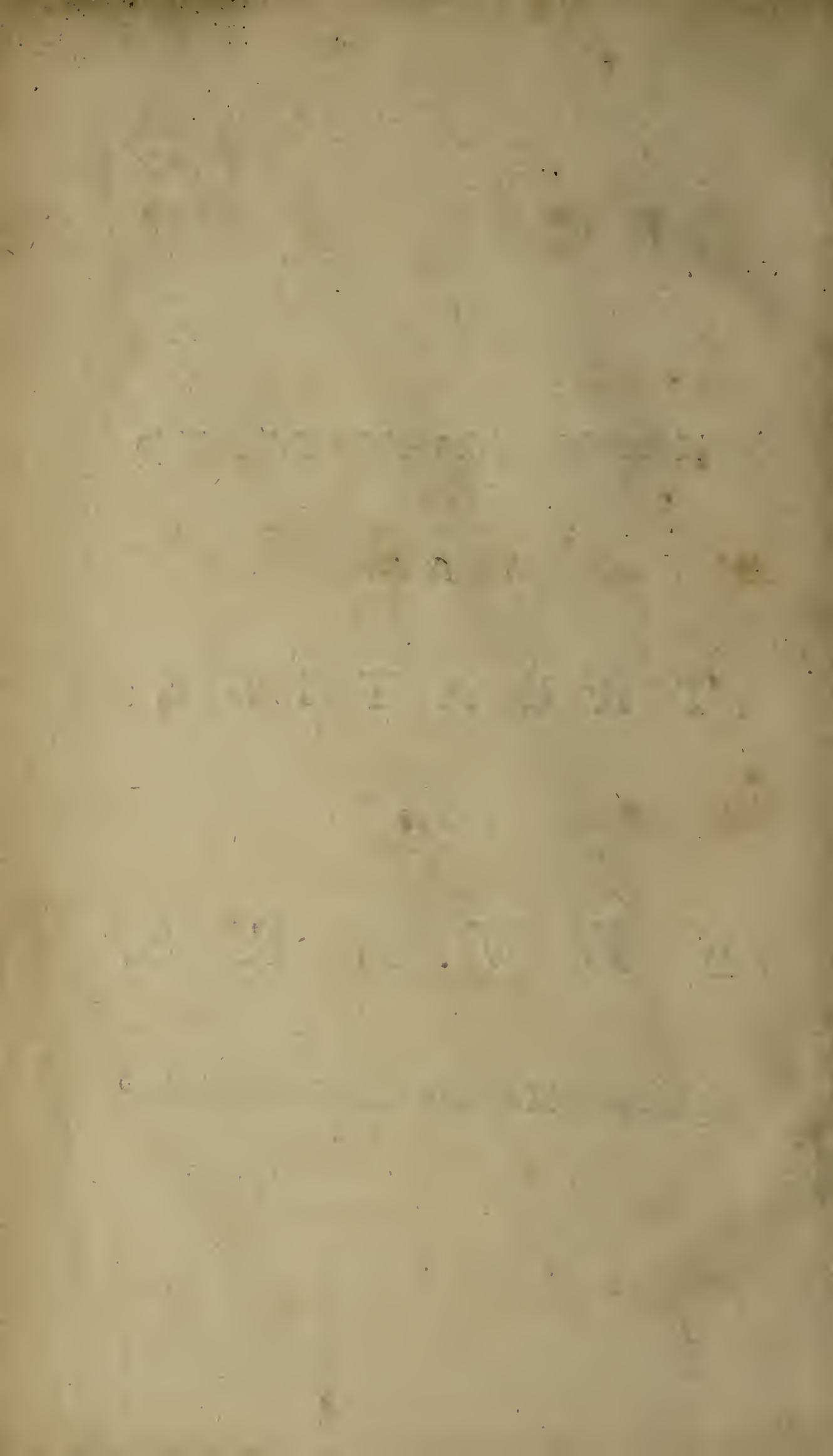
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A
T R E A T I S E
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THE LONDON MEDICAL SOCIETY
A
T R E A T I S E

ON

CONTINUAL, INTERMITTING,

ERUPTIVE, AND INFLAMMATORY,

F E V E R S.

W I T H

O B S E R V A T I O N S

Extracted from the Writings of

The most EMINENT PRACTITIONERS, both
Ancient and Modern, and confirmed by the
AUTHOR'S own Experience in the Course of
Twenty Years Practice.

To which is added,

An ACCOUNT of EPIDEMIC FEVERS,
From HIPPOCRATES, SYDENHAM, and LANCISI.

By J O H N G I B S O N, M. D.

L O N D O N,

Printed for J. Nourse, Bookseller to His MAJESTY.

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TO THE
P H Y S I C I A N S
OF
G R E A T - B R I T A I N .

GENTLEMEN,

TO you I apply, as the most proper judges to determine if there is any merit in the following Treatise. You well know how necessary and useful it is to be able to distinguish diseases, in order to draw from them the proper indications of cure, and prescribe with success such
medi-

DEDICATION.

medicines or applications as are suitable to the disease.

The collecting the best observations from the most eminent practitioners, ancient as well as modern, and exhibiting them in so concise a manner, the Author hopes will gain your approbation.

The facts are such as have been often confirmed by frequent experience, and are here delivered free from theory : every reader will probably chuse to apply his own.

The doctrine of Crises is as ancient as medicine, and has been supported by accurate observers in all ages ;

2

and

DEDICATION.

and it appears to me, after more than twenty years experience, that nothing but ignorance and inattention can call it in question.

The Author with pleasure addresses himself to such of his brethren as, by a regular and liberal education, have acquired much knowledge; and who, from a rational and extensive practice, are enabled to decide, whether any thing in the art of healing is more useful to the physician, or salutary to the patient, than the art of predicting. Such physicians as are masters of this, from their successful practice and certain predictions in continual and other fevers, daily gain the confidence and esteem
of

DEDICATION.

of their patients, and the approbation of every good judge.

By well understanding the art of presaging, if the physician is timely called, he can in many cases foresee every symptom that shall happen through the whole course of the fever; he may determine when it will happen, its duration, and the degree of its severity. Thus enabled, he provides against every exigency, and in many cases secures the life of the patient. But how different is it, when from prejudice, or trifling with an apothecary, the proper opportunity is lost, the disease has gained ground, strength is exhausted, and impending destruction demands the assist-

DEDICATION.

assistance of the physician: now called, and carefully examining the patient, he finds no resources from medicines, and only proves the unhappy spectator of irremediable mischief.

Such cases as the preceding bring unmerited disgrace on the art, and confirm a senseless prejudice, that physicians can be of no use in fevers; than which nothing is more hurtful or less true. Did the sick know how short the duration of many fevers till death ensue, how certain the relief in most cases from a rational practice, and how great danger in delaying to call the physician, they would not hesitate a moment when the risk is so great.

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DEDICATION.

The trusting to specifics, or practising in one particular method without regarding circumstances, are often fatal mistakes, ignorantly supported and encouraged by some physicians, and generally followed by apothecaries. These will deserve contempt, while your rational endeavours, by which the art of healing is every day improved, the honour of your profession maintained, and the lives of mankind preserved, not only place you above censure, but secure the approbation and esteem of your intelligent brethren, and the favour and gratitude of your happy patients.

The physicians of Great Britain, I hope, will ever be ambitious to distinguish

DEDICATION.

tinguish themselves by their learning and judgment, as well as by humanity and benevolence; and the chief emulation among them ought to be, who shall shew himself the worthiest citizen, best man, or ablest physician.

That Heaven may render effectual your united endeavours in the most useful of arts, and long preserve you as blessings to afflicted mortals, is the sincere prayer of one who is,

With esteem and respect,

Gentlemen,

Your constant admirer,

And most obedient humble servant,

JOHN GIBSON.

DECLARATION

I, the undersigned, do hereby certify that the foregoing is a true and correct copy of the original as the same appears in the records of the Court of Sessions of the County of [illegible] State of [illegible] this [illegible] day of [illegible] 18[illegible].

Witness my hand and seal of office at the City of [illegible] this [illegible] day of [illegible] 18[illegible].

[illegible signature]

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T H E
P R E F A C E.

TH E following Treatise was intended for the use of one, whose genius as a scholar promised much early in life. The author expected that he would have applied himself to the study of medicine ; but as other views have determined him to the pursuit of a more lucrative profession, it is now offered to the Public; and if it shall be found acceptable, the most useful observations on other diseases, chronical as well as acute, shall follow.

Such books on medicine as are mostly in use have been composed by
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professors in colleges ; and however well they are adapted to the use of the students under a particular teacher, yet perhaps but few of them can prove of general utility to physicians in practice. In some of them the style is diffuse to a fault ; in others, it is unintelligibly concise.

In not a few of these books, the sense is so obscured by theory, that scarcely can the most sharp-sighted reader discern what is useful. Every author either adapts the theory of others to his purposes, or forms a new one of his own. Whichever is the case, every fact must yield to the favourite theory: and such as are found obstinate, no matter how important or useful, are sure of being rejected. Nay, such is the prevailing power of fashion in teaching as well as writing, that no sooner is a professor seated in his chair, than he

he retails his whims à-la-mode, to the great satisfaction of his ignorant hearers.

It has been the aim of the author to avoid the above faults, and several others; he has been more studious of what is useful than what is elegant; he has, at least, endeavoured to be intelligible every where: whether he has succeeded or not, let the Public determine. The following rude draught of a plan for composing a history of medicine, with the few observations annexed, may perhaps prove agreeable to some of my readers, or useful to others, in the making a proper choice of the best authors who have written on the art.

It is generally agreeable to the professors of any art to know its progress, and be made acquainted with the authors who have distinguished

themselves in promoting it. I shall confine myself to a few of the distinguished writers of each æra, and the most important facts in the progress of the art, and advances of the science: another work will more fully illustrate the whole history of medicine, from the Creation to the present time.

Were we to trace medicine from the earliest accounts which we possess of its practitioners down to the present times, we might, perhaps not improperly, divide its history into five remarkable æras.

The first period may be called the Grecian. The most conspicuous author in it is Hippocrates; for though diseases, coeval with mankind, rendered this art every where necessary from the beginning of the world, yet we are informed by Celsus and others, that Hippocrates was the first who separated

parated the art of healing from philosophy, or the study of wisdom: these writers should rather have said, who devoted himself solely to the practice of medicine, after being master of philosophy.

This period may extend from the Creation: it will contain the age of Hippocrates, and be continued down to the time of the appearance of the first Greek physician at Rome, in the year of the world 3765.

The second period may be denominated the Roman. Celsus, Cælius Aurelianus, Dioscorides, Galen, and many others, lived and wrote in this period, which may extend from the appearance of Argacathus at Rome, to the beginning of the Mahometan Hegira, which happened in the year of Christ 622; and may comprehend near the space of nine hundred years.

The third period may very properly be called Arabian, as the authors of that nation are the most eminent. It may begin with the seventh century, and end with the fifteenth, and will include near the space of nine hundred years.

The fourth period may include the sixteenth and seventeenth centuries, during which space of time medicine was general: so that it cannot be denominated from, or confined to, any particular nation or country. This period is fruitful in many able observers; among these Sydenham makes a conspicuous appearance: anatomists; first of whom are Vesalius, Falloppius, and Eustachius: eminent chemists; in the van of whom appear Paracelsus and Van Helmont: commentators, who have likewise merited the name of observers; of these, Hollerius, Duretus, Martianus, and several others, claim our regard.

Inventors will make an illustrious catalogue. We may begin with the great Harvey, and end with the immortal Newton.

Numerous and valuable are the books on medicine which were composed during the last of these centuries. Pharmacy and surgery have also been greatly improved in the space of this period, by able practitioners in each.

The fifth and most interesting period may treat of the authors of the present century. In this how numerous the improvements! how illustrious the writers! Boerhaave, Hoffman, Stahl, and Mead, must appear in a striking light; and many others deserve to be made mention of before we arrive at a Bernhard Siegfried Albinus, an Astruc, Van Swieten, Huxham, and

many more, who are still ornaments to the age, and greatly advance the art by useful inventions.

The reader may regard the following compendium as containing a few outlines of a picture, where the places which are to be occupied by the principal figures are lightly marked, and only a few of them are noted down, to prepare him for perusing the intire piece, when it shall be finished.

As I propose to confine my observations within the bounds of a preface, the reader cannot expect to find the above articles fully treated of; a concise account containing some interesting particulars is all that is intended.

I now return to the Grecian æra, which is my first article.

Greece,

Greece, so fruitful in philosophers, poets, historians, and painters, had also the honour of producing Hippocrates ; an able philosopher, as well as physician. Whatever knowledge he had reaped from the lectures of the most eminent professors in the several schools of Greece, whatever he found in the manuscripts of preceding physicians, or in the temples of the gods, these he converted to his use ; and after studying nature with great application, he proved his superior abilities by the success of his practice.

In observing, none perhaps ever equalled him. Taught by nature, he has accurately described diseases in their ordinary course and deviations. Whatever symptoms indicate the long continuance of the disease, its exit, as to the return of health, or destruction of
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the patient, are to be found in the works of Hippocrates.

Such diseases as change into other diseases, are taken notice of, with the symptoms that precede or accompany the several changes: and what is surprising, scarcely has any thing material been added to the accounts of the diseases that were known to Hippocrates.

Many of the observations in the following Treatise attributed to others, are to be found in the works of Hippocrates.

I desire the reader may consider, that my intention was not to give a history of observations, but to collect the most useful ones.

Not all the merit of the institutor of our art has been able to secure him
from

from being censured : several objections have been made against him.

That his doctrine of crises is taken from the Pythagorean numbers, is hinted at by Galen, and asserted by Celsus, who says, that his regard to these had led him into an error.

In answer to the above, it may be observed, that Hippocrates confines crises to no particular days, but asserts, that they more frequently happen on some days than on others : for instance, on the unequal days. And does not daily experience convince us of the truth of the above ? Had Celsus considered the observations of Hippocrates, and compared them with what happens in diseases, he had never made the objection.

I have heard it asserted, that the observations on the different kinds of
urine,

urine, with the changes they undergo, and the prefages drawn from thence by Hippocrates in diseases, ought not to be confided in, as the same changes may be observed to happen in the urine of those who are in health. I acknowledge that the last observation is true : but it is no objection to what is observed by Hippocrates in diseases, as I have often experienced.

As to the practice of Hippocrates and the other Greek physicians, it may be observed, that they enjoyed many advantages beyond the physicians of the present time : the apothecaries and surgeons were then servants, residing in their families, exercising their office under the eye and by the direction of the doctors, and obedient to their orders. We are not certain as to the particular method of cure these physicians followed in some diseases ; yet we know that great cures might
be

be effected by elaterium, the hellebores, &c. under the direction of sagacious and rational prescribers.

The above medicines, if properly administered, may perhaps equal in efficacy the fever-powder, and every other nostrum so universally extolled at present: certain it is, that they are as violent emetics and cathartics, and as powerful alteratives, as this celebrated powder.

Neither are we able to determine from our present practice, what sudden and salutary changes might have been brought about in diseases, and particularly in inflammatory fevers, by bleeding till the patients fainted, as we seldom proceed so far; yet we know that this was practised by Hippocrates and the Greek physicians. Constant experience, indeed, convinces us of the
good

good effects of large evacuations by blood-letting, in these and other diseases.

Hippocrates, well acquainted with the uniformity of the operations of nature, even in diseases, could, on examining the patient, foresee in many cases the course of the disease, and thence was able to judge what assistance might be required. When the disease foreboded no harm, he committed the affair to nature: when he saw nature oppressed, and that the disease threatened mischief, he procured relief by the aid of such operations, or medicines, as he knew to be efficacious in producing a salutary change.

How worthy an example to modern practitioners, who often unnecessarily make the unhappy patient run thro' a loathsome course of drugs, for no
other

other end but because it is common, and swells the apothecary's bill!

Such practices an honest man will ever detest, and scorn any combination that can prove detrimental to those who honour him with the care of their healths, and preservation of their lives.

Many classes of medicines were known to Hippocrates, and several of his improvements in surgery are still valued.

None of the writers who were contemporary with him, and but few of those who appeared later in this period, have added any useful observations on diseases to those Hippocrates left behind him. The study of nature was soon after this deserted in Greece, and in place of it his successors indulged

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dulged their imaginations in all the whims of extravagant theories. Mistaken mortals, in every age, from a fond belief that every thing in nature can be comprehended and accounted for by them, have strenuously persisted in pursuing a phantom, while with half the pains they might have been obtaining real knowledge.

I shall conclude with observing, that the manner of writing to be found in the genuine works of this eminent author, is the best pattern for such medical writers as incline to communicate useful knowledge in an agreeable style.

During this period, Erasistratus and Hierophilus, who lived and practised in Egypt, gained great reputation in anatomy, and the practice of medicine: but as we have only some quotations

tations of their works remaining, we are little able to judge of their merit as authors.

It must afford great pleasure to the benevolent reader to observe, that either Liberty blessed mankind, or humane monarchs governed nations for the greatest part of this happy period; and that while the Grecian states continued free and independent, arts and sciences flourished, men of learning were esteemed, and physicians were encouraged, rewarded, and honoured; and that this was the case in Egypt as well as Greece.

But I leave this happy æra in order to approach one in which mankind had no such blessings to boast of; and in which able physicians had just cause to complain, as little regard was paid to men of genius.

The Romans having conquered Greece, introduced the arts and sciences that the Greeks possessed into Italy ; and if we may credit Cicero, a truly respectable author, they improved whatever had been brought from thence.

However true this might be with regard to the other arts, medicine seems to have improved little in their hands. A fondness for war and conquest was the prevailing passion at Rome ; neither was the art of healing or its professors in much esteem. What could be expected from cringing slaves, whose lives and fortunes were subjected to the caprice of the inhuman, bloody, and merciless tyrants of Rome ? Pliny informs us, that the great families at Rome had books of receipts, in which they were so silly as to confide, and despise physicians.

When

When we consult the history of the Romans, we find that judicial astrology introduced and kept up the belief of a fatal destiny, which no human efforts could alter or stop.

All the above-mentioned circumstances were unfavourable to the art and its professors ; notwithstanding which disadvantages Celsus has published a system of medicine in excellent language, containing many of the useful observations that are to be found in the works of Hippocrates: he has likewise given us several valuable observations on the practice of Hippocrates and Asclepiades ; and has shewn us, that he was well acquainted with surgery.

Many writers have asserted, that Celsus was no practical physician ; but scarcely can it be believed that he

could collect ſo many uſeful obſervations, put them into ſuch good order, and deliver them with ſuch propriety, had he not practiſed : and, what can never be performed by a ſtranger to practice, he criticizes with ſkill, and in matters of diſpute decides with judgment.

The works of Celfus deſerve to be frequently peruſed, as they contain many things which are of conſiderable uſe for our underſtanding the hiſtory both of phyſicians and medicine.

In the works of Cælius Aurelianus are to be found ſeveral uſeful obſervations on diſeaſes, and on practice, from books which are loſt, and ſeveral of his own : but they are obſcured by uncouth phraſes, and a barbarous ſtyle of language.

Dioscorides may be considered as an original author on the materia medica. He was indefatigable in acquiring knowledge ; and the virtues which he ascribes to several substances, are supported in many instances by modern experience. From their usefulness, his works are justly esteemed.

Galen, who was master of all the knowledge to be found in preceding authors, wrote much. He understood the works of Hippocrates, and has commented on several of them : he added to the improvements of Hippocrates some useful observations on pulses. In his works are to be found many judicious remarks on practice, on the materia medica, and on pharmacy. Anatomy and physiology was much indebted to him, and his science of medicine is truly ingenious ; yet his theory confounded all, and its

baneful influences were felt in medicine for more than fifteen hundred years.

During the above space, Hippocrates and Galen were believed to have exhausted every thing useful in theory or practice ; and their doating disciples, in place of consulting nature, continued blindly attached to their masters. No matter how ridiculous doctors opinions about the end of the third period, and in the beginning of the fourth ; how absurd, useless, or hurtful, their practice ; could they but support either by even a wrong quotation from Hippocrates or Galen, their opposers were confounded, and their stupid admirers were struck with astonishment at the great learning of the men. Nay, so obstinately did they persist in this folly, that Alexander Massa, in the beginning of the sixteenth century, declared that he would rather be

wrong

wrong with Galen, than right with his adverfaries.

This declaration muft appear ridiculous in this enlightened age, when almoft every one is infpired with a love of inquiry, and fcorns to be blinded by authority in matters where he can appeal to nature, who is the beft instructor.

Oribafius and Aetius, though compilers from the books of other authors, yet their works deferve to be read over, for fome useful things they contain, that are no where elfe to be met with.

Areteus Cappadox and Alexander Trallian have communicated fome useful knowledge. They were not fo blinded by authority as to neglect obferving; and from their own experience they improved the practice of medicine; though the credulity of

Trallian, in recommending some ridiculous applications and internal medicines of little efficacy, does no great honour to his judgment.

Both of them are justly commended for their accuracy in describing diseases.

The works of Paulus of Egina, besides many things in medicine, contain some useful observations on surgery.

The abovementioned authors are the most conspicuous in the Roman æra; and the works of the three last named will greatly instruct the reader, if they are perused with attention and judgment.

Several other authors might be mentioned before I come to the Arabians; but as their works contain little new, or useful, it would be labour lost.

lost. It may be observed with regret, that between the authors of this period and those of the next, there is a large blank, in which we meet with nothing in the history of medicine that deserves to be inserted.

It is now proper to take notice of some of the authors of the third period. Though they were very numerous, yet there are but few of them who deserve to be ranked among the improvers of medicine.

Rhazes, Avenzoar, and Albucasis, are the chief writers of the Arabians who merit our attention: but it would prove tedious should I descend to particulars; so I shall confine myself to a few general observations.

Mahomet, the institutor of their religion, not only favoured the art of healing, but is said to have made great
pro-

progress in it himself. His successors, influenced by the example of their great prophet, appointed several professors of medicine in different places: these were highly esteemed, much employed, and generously rewarded. Wherever they taught, hospitals were built and endowed, and numbers of sick received: this afforded the physicians an opportunity not only of practising and making observations, but likewise of instructing their students. Neither is it to be doubted, that many of the inhabitants, when under diseases, had recourse to the advice of physicians, who were in such high reputation among the great men of these extensive dominions.

Here it does not seem foreign to my purpose to take notice, that the general prejudice in favour of medicine, was probably the means of preserving the Greek and Latin manuscripts on
this

this science, when such incredible numbers of other manuscripts were destroyed by the burning of the Alexandrine Library, in the year of the world 3957. Certain it is, that many years after this, when Alexandria was taken by the Arabs, under the command of Amru, general of the khalif Omer, in the year of Christ 635, the Greek manuscripts of several physicians works were preserved, while those of authors on different arts were employed as fuel to warm the baths of the barbarous conquerors.

That the manuscripts of the Greek physicians were preserved after the destruction of the Alexandrine Library by Amru, is certain: that the Arabian doctors perused them, is not to be doubted; the books of their best authors are filled with the observations of Hippocrates, and the theory of Galen.

The

The Mahometan religion, which prohibited touching of dead bodies, kept the Arabians ignorant of anatomy; yet from several observations in Avenzoar, it is more than probable, that they sometimes opened the bodies of such as died of diseases.

Some new and useful observations on inflammatory diseases, and several on chronical, are to be found in their works.

The materia medica is indebted to them for having introduced into it the aromatic spices of the East.

Sugar was first made by the Arabians, and used in medicine instead of honey.

Easy laxative medicines were ordered by the Arabian physicians in ordinary cases,

cases, in lieu of the rough cathartics used by the Grecians and Romans during both the preceding periods: and with such as are really concerned for the welfare of their patients, this practice still prevails, to the great benefit of human kind.

Chemistry, first employed by them, soon recommended itself to the professors of medicine, and has since proved of great utility to the professors of the art of healing.

Apothecaries and surgeons, though no longer domestics of the physicians, yet exercised their several professions under the direction of the doctors; and several of their eminent physicians practised surgery themselves.

Rhazes not only understood the works of Hippocrates and Galen, but he has translated and published many
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of them as his own: yet we ought not to regard this author as a mere translator; some of the observations that are found in his works are his own.

He has left us so distinct an account of the small-pox, and such rational directions for our practice in that disease, as must convince us of his abilities as an observer; for whatever some prejudiced favourers of the physicians of the preceding æras may have asserted to the contrary, this disease was intirely unknown to both.

Avenzoar has given us such useful observations on diseases, and such rational directions in practice, as may convince us of both his attention and skill. Avicenna has left behind him an ample system, like many of modern times, abounding in theory, and which contains several things that are
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instructing, particularly with regard to the knowledge, reasoning, and practice of the Arabians.

Albucasis, by his surgery, seems to have been a hardy operator; and in his works we meet with some useful observations on the practice of surgery, though his doctrine in midwifery is shocking.

The account of the Arabians may be concluded by observing, that they too blindly confided in the skill of their predecessors, to make any considerable progress in improving the art; though no physicians had ever better opportunities of improving practice.

During the time in which the Arabians wrote, medicine was mostly confined to Asia and Africa; it was afterwards introduced into Europe, and many colleges were established; physicians

ficians were also employed by kings and princes : but ignorance, judicial astrology, and superstition, which characterize the times, prevented improvements. Neither were the physicians free from these follies ; the excellent art of medicine, as left by the Greeks, and science, as improved by Galen, was unknown to them : the Arabians had much observed it ; and even their works were only partly known by some of these professors, and altogether unknown to others.

Notwithstanding the general ignorance of the professors of the medical art, yet several practitioners in the end of this period were well acquainted with the art of adapting themselves to the prejudices and ignorance of their employers, by means of which they amassed treasures, and gained very high reputations.

With

With what contempt must a rational physician read their works, when he meets with methods of cure that are ridiculous, and medicines recommended as specifics which are trifling and useless!

Such doctors, such methods of cure, and medicines, may be, perhaps, met with in more enlightened ages; neither are instances wanting in the present times, of ignorance and cozenage being preferred to knowledge, honesty, and reason.

We must with pleasure leave this gloomy period, in order to approach one in which the light of the two first periods is ushered in, aided, and rendered more conspicuous by the dawn of reason. What happened in the end of this period, greatly favoured the improvements of the ensuing one; for after the taking of Constantinople

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by the Turks in 1453, the works of the Greek physicians were saved from the general destruction by some learned men, who carried them to Italy, where they met with a favourable reception. There the family of the Medici received, protected, and encouraged men of learning, from a greatness of soul peculiar to themselves: they loved arts and sciences, and generously rewarded the professors of them.

Soon after the invention of printing in 1440, the works of the Greek physicians were published, studied, and translated into Latin; so that the knowledge of them became general.

The professors of the several colleges in Italy and France read and admired them. Such physicians as happily applied themselves to observing diseases were, after experience, convinced that Hippocrates had exhausted
almost

almost all useful knowledge on this part of medicine; and that the best manner of communicating whatever knowledge they themselves had acquired by observing, was to write a commentary on some parts of the works of Hippocrates or Galen: hence are the numerous tribe. Some of these commentators are valuable for their learning; others for their knowledge of the art of healing. Hollerius, Mercurialis, Duretus, Ballonius, have published commentaries, which may be consulted to advantage; but were they not so filled with false theories, they would be read with more pleasure, as well as profit.

The works of Galen were likewise read, and his theory confounded all. With this the several readers were so bewitched, that in the works of Hippocrates, while they sought for theory,

his excellent observations, drawn from nature, were over-looked. If ever an appeal was made to nature, it was in behalf of some favourite theory, which it was then fashionable to support at every expence.

Fernelius had courage enough singly to oppose the general prejudice, and combat the authority of Galen. This attempt was not without some success; but how difficult is it to restore mankind to the right use of reason?

To Vesalius we may be said to owe every improvement in anatomy since his time. Though he was well acquainted with the works of Galen, he did not rest satisfied with what he had learned from them. He dissected human bodies; he described the parts as he found them in nature; and had many of them delineated by able
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painters, and afterwards engraven. He reasoned in a very ingenious manner of their uses from the structure: but what was of the greatest importance to the art, he destroyed the power of Galen, and set at liberty many who had continued long enslaved to their prejudices in favour of this author. He also turned the attention of physicians to nature; and whatever objections were made to his observations, he removed, by appealing to the human body.

Silvius, who had been his preceptor in Paris, and had grown old in regarding Galen as infallible in anatomy, was an inveterate enemy to Vesalius. He at last, though overcome by the truth, was determined not to yield; and asserted in support of Galen, that men were otherwise made in the days of Galen than in the time of Vesalius.

The works of this great anatomist must convince every impartial reader, that he well deserves the name of Restorer of Anatomy: he was an able practitioner, as well as accurate anatomist.

Contemporary with him was Gabriel Falloppius, who examined every part of the human body with accuracy, and describes whatever he had observed with elegance and propriety: he carried his researches farther than Vesalius had done.

The Tables of Eustachius and his Opuscula are sufficient to demonstrate how great an anatomist he was.

The followers of these great men, in imitation of their masters, continued to inquire into the structure of the several parts of the human body ;
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useful discoveries were made; and I might here insert the names of many inventors: but these I pass over, in order to come to the most useful invention for improving the science of medicine that ever rewarded the toil of any inquirer. This we owe to William Harvey, physician to Charles I. king of Great Britain: he by a series of experiments has proved, that the blood is constantly circulated through every part of the body, while life remains.

This opened a new field of inquiry to anatomists; the structure of every part was unravelled, and its uses found out.

The knowledge of the circulation of the blood may justly be regarded as the guide to all the knowledge of the structure of the several parts of the human body that we possess; for from

this, John Swammerdam invented the art of injecting the blood-veffels, which was afterwards carried near to perfection by the indefatigable Frederick Ruyfch.

What numerous discoveries have been made by means of this, I need not relate.

Let the above then fuffice for anatomy and its professors, while I proceed to another fet of phyficians, who have greatly enriched medicine.

The first I fhall make mention of is Paracelfus, who, though he has been abused by authors as one frantic (he was indeed very irregular in his conduct), yet I cannot help viewing him in the light of a reformer: he travelled through Egypt, and refided feveral years in that country, which is well known to the learned to have been
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the source of sciences: after his return, the success of his practice gained him great reputation. To him we are indebted for many valuable chemical medicines; he attacked Galen, though with fury, yet with success; and turned the attention of his successors to finding out remedies by chemical operations.

His obscure and whimsical manner of writing renders the perusal of his works disagreeable.

Van Helmont prosecuted what Paracelsus had begun; and these two introduced chemistry to the knowledge of the physicians, which has since been very serviceable to the art of healing. What these whimsical chemists had introduced, was greatly improved before the end of this period.

I come

I come now to practice, which is the proper object of the physician's study ; where it may be observed, that it is reasonable to expect the greatest improvements from such authors, as, free from prejudice, applied themselves to observing diseases, and the manner of curing them.

Some of those have published cases, or particular histories of diseases, that well deserve to be perused ; but as they are too numerous to be particularized, I shall only mention Hildanus, as one of the chief of them.

Others have given us general histories of diseases, the result of practice and experience : these for the most part are preferred to the preceding, and some of them have been written with judgment.

Doctors Morton and Sydenham have distinguished themselves in Britain, by the valuable knowledge which they have communicated.

Dr. Baglivi, who practised in Rome, promised great improvements in practice. He proceeded in the manner of Hippocrates, and gave the public a valuable specimen of uncommon abilities in observing and practising: but his premature fate prevented him from making any great progress.

How bewitching is theory! He too soon wandered into its devious paths, to the regret of every practitioner.

Numbers of others deserve to be made mention of, did not the narrow bounds within which I confine myself forbid it.

During

During this period, several new medicines were introduced into practice; these came mostly from America. The Peruvian bark acquired great reputation as a febrifuge, which it still maintains. Sarsaparilla root and guaiac were much used as remedies for the venereal disease, which had first made its appearance in Europe, at the siege of Naples, in 1494.

The venereal disease was the occasion of introducing the frequent use of mercury and its preparations into practice; which have since been of singular efficacy in curing many diseases.

During this period, several societies were established in different parts of Europe: these were protected and encouraged by monarchs, and have proved of great service in promoting
arts

arts and sciences ; and particularly the knowledge of nature, without which no physician can understand his business.

The Hon. Robert Boyle has shewn the nature of air, and properties of fluids ; he likewise much improved chemistry, and by his pious researches into nature made several useful discoveries.

Natural philosophy drawn from a proper source was yet wanting ; for whatever attempts had been made, were hitherto attended with small success. The ingenious fancies of Des Cartes had drawn in the professors of philosophy to believe in his vortices : there they remained inactive, ignorant of natural causes, till Isaac Newton applied himself to the study of nature. By observations and experiments he found out the cause of

many of her operations: gravitation, attraction, and repulsion, he proved to be essential properties of matter; and he has determined the manner in which these act in a variety of different circumstances.

He has likewise made us acquainted with the laws to which they are subjected, and shewn that they obtain throughout all nature.

He was the first who understood the nature of light, and determined the powers of its particles in a compound, and separated state.

Many others deserve to be named, for numerous were the improvers of this happy æra; but I hasten to conclude with the present division.

It now remains before I conclude, to make mention of a few of the most
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conspicuous medical authors of the present century, who have improved the art of healing, and reduced it to a rational science on certain principles: but before I begin, it may not perhaps be amiss to view the state of medicine in the end of the seventeenth century.

Anatomy, physiology, and pathology, were much improved; chemistry had lent its aid to pharmacy, and given great insight into nature.

The materia medica was not only enlarged, but reformed.

The effects of such medicines as were given in diseases had been attended to, and several of their virtues ascertained.

Surgery was tolerably understood, and began to be practised with address
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and success in France ; yet what is to be regretted, diseases were not attended to, nor so well understood as they had been by Hippocrates. The reformers of our art, like other reformers, had gone too far ; and while they exposed the baseless theory of the ancients, they hurt the reputation of their observations : nor did the physicians consider, that such observations as are taken from nature must ever be useful, and permanent as nature herself.

Had any one leisure enough to compose a history of medicine for the present century, he would find an ample field, fruitful of the most valuable productions ; the observers are numerous, and their works contain many and great improvements.

I shall only mention a few of the authors.

Doctor

Doctor Ramazzini in Italy, turned his attention in observing to what peculiarities arose from the patients having been accustomed to the practice of particular arts. His experience he communicated in his Treatise on the Diseases of Tradesmen: this and his other works may be read to advantage.

I can recommend Dr. John Freind as a learned commentator, a sagacious physician, and skilful practitioner ; for that he was really such, his works evidence.

Dr. Richard Mead was long in London the first in learning, as well as in the practice of medicine. As he possessed a fine taste, literary productions were submitted to his review as the ablest judge; and he constantly encouraged merit, and patronized men of letters. In his works we admire

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his judgment, and are delighted with the elegance and propriety of his style. His Medical Cautions and Precepts, and other books, will ever be regarded by physicians of sense as a valuable treasure of useful knowledge, and an excellent pattern to medical writers.

Dr. Huxham's works are well known and justly esteemed.

Dr. Pringle had a good opportunity of observing in Germany, during the late war; and his useful observations and experiments since published, have enriched medicine.

I shall make mention of no more medical authors at present, but refer my reader to the productions of the several societies of physicians in Europe, where he will find many excellent and useful observations.

It

It is impossible to understand anatomy without dissecting; but along with this, the practical anatomist will make much greater advances in knowledge by perusing the works of some of the most eminent authors.

Dr. Winflow, who taught at Paris, is an original author. He examined every part of the human body with care and attention, and scarcely has any thing escaped his observation: he is candid and ingenious, and his descriptions are plain, easy, and accurate. Dr. Haller calls them *immortal*.

Dr. Morgagni, professor at Padua, has published several improvements and discoveries in anatomy, in his *Adversaria* and *Epistles*. In perusing these, we with pleasure admire his extensive learning, as well as skill and accuracy in anatomy.

Dr. Bernhard Siegfred Albinus has, perhaps, exceeded all his predecessors, and even his contemporaries in dissecting, describing, and delineating the several parts of the human body. I have often admired his skill in dissecting, and the neatness and cleanness of the parts that he demonstrated: his observations were always judicious, and his descriptions proper. In his figures, all of which are designed from the parts as near as possible to their natural position, we at the same time admire the justness and elegance of the representation. No man ever injected the blood-vessels with greater success, or carried his researches farther into the minutiae of anatomy than Albinus: he well knew how to prepare the several parts, and to preserve them near to their natural state. As he is better acquainted with the structure of the viscera and every other part than any other professor,

feſſor, his Phyſiology has perhaps exceeded any thing yet publiſhed. He never indulged his imagination in vain theory, nor went farther than what he had obſerved could warrant.

But I do him injuſtice in only mentioning him in ſo confined a manner ; for he is well acquainted with every part of medicine, and an univerſal ſcholar and polite gentleman.

Several of our preſent anatomiſts in Britain deſerve very high commendations ; but their merit is ſufficiently known in this iſland.

I come now to take notice of ſome profeſſors who, during their lives, acquired great reputation, and continue ſince their deaths to be admired by many, blindly followed by ſome, and blamed by others : ſuch is the fate of the beſt of authors.

Dr. Herman Boerhaave, late professor in Leyden, appears to have been born with a genius fitted for improving every part of medicine. By uncommon application, he had early in life acquired the knowledge of most arts and sciences. Philosophy and anatomy he borrowed freely from the best authors ; and by help of these he introduced a rational theory, and much improved physiology and pathology.

The observations of Hippocrates are the basis of his excellent aphorisms. In his theory these are ranged in a very judicious manner ; and they, with some modern improvements, form a well-connected and regular system.

In chemistry he is an original author. He has freed the art from the affected obscurity of former writers, and reduced it to a rational science.

To

To botany he likewise turned his attention ; neither was he unsuccessful in this.

He studied the works of the ancients, and read with attention the authors of every age: their knowledge soon became his own.

He was sagacious in finding out diseases, and successful in curing them.

His materia medica, and many of his consultations published since his death, shew forth the simplicity of his practice ; while the great reputation and fortune which he acquired, will be deemed vouchers of its success.

He taught the art to his students in a very agreeable manner, which has since been followed by many professors,

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fors, as preferable to every other method.

There has been published for the use of students of medicine a method of studying written by him, which might have proved helpful to them, had it not been lately loaded with useless title-pages by a drudge of an editor.

Boerhaave's style is concise and expressive, and well fitted for text books.

I come now to take notice of a noble pair of professors, whose merits are great. They were some time colleagues, and both of them have promoted the knowledge of the art of medicine. The reader will readily perceive, that I mean Frederic Hoffman, and George Ernest Stahl. A
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comparifon between them will give us a proper idea of each.

Hoffman in theory, reafoned on the principles of the mechanics; Stahl thought thefe infufficient, and had recourfe to the affiftance of the foul, as director of the feveral efforts in the body.

Both carefully obferved difeafes, but accounted for the fymptoms in very different manners. Both were anxious to find out the proper method in curing difeafes; and in this both were fucceffful. The powers of medicines were obferved by both; and we may fafely confide in the virtues of thofe medicines that either have recommended.

Both were eminent chemifts, and made confiderable discoveries; yet I cannot help giving Stahl the preference :

ence: he constantly aimed at finding out the chemical principles; and by his discoveries he has reduced the art to great simplicity.

Hoffman wrote with uncommon elegance and propriety; Stahl's manner of writing is peculiar to himself, and devoid of ornaments: yet such as read for knowledge will peruse his works with satisfaction, though they dislike his style.

Hoffman's works contain almost every thing useful in the art; in Stahl's are found his own observations, which are numerous and valuable.

We may consider many of the best physicians of Europe, at present, in observing, as the followers of Hippocrates; in theory, as the imitators of Boerhaave, Hoffman, and Stahl.

Stahl observed many things in diseases which had been overlooked by preceding physicians; and the theory resulting from these is intirely his own: he has had many followers, to whom we owe several improvements in medicine.

The regard I have to the interest of my readers, urges me to make mention of some professors who are still alive; but with whatever caution I proceed, small is the chance of avoiding blame. To praise any one, is giving him a preference to his contemporaries, and sure of raising the envy of those who are not named. My apology is, Few can be admitted consistent with my plan; and I desire those who are not named to consider, that it is not from ignorance of their merit, or want of inclination to do them justice. Were I but even to name every
author

author who deserves it, the bulk of my preface would far exceed the size of my treatise.

I begin with a gentleman who is entitled to be taken notice of, from my having heard his lectures for several years, and from his being well known among physicians for his uncommon merit.

Dr. David Hieronimus Gaubius, professor at Leyden, was chosen by Boerhaave as a worthy successor ; and he has done justice to the judgment of so eminent a master. His lectures on the Institutes and Aphorisms of Boerhaave on pharmacy and chemistry, have given great satisfaction to his students ; and his method of prescribing, and pathology, must convince his intelligent readers of great application and accuracy.

Dr.

Dr. Gerard Van Swieten, physician in Vienna, attended the prælections of Boerhaave for an incredible number of years, by which he was perfectly well acquainted with his doctrine. He has published a learned and judicious Commentary on the Aphorisms of Boerhaave. The learned world regret that it is not yet finished, and expect with impatience the fourth and fifth volumes, particularly the last. From some efficacious medicines that this great man has lately communicated to the public, we have reason to expect the most useful book on medicines that has yet appeared.

Let me add to the above, that he lectured on compound medicines at Leyden for many years, to the great satisfaction of his hearers; and from his extensive practice since, we have just grounds to expect many improvements.

ments. This author's candour and ingenuity raise the value of whatever he recommends ; and the chief aim in his publications seems to be, the promoting of the welfare and interest of human-kind. No work deserves better to be perused than his ; for he has carefully observed nature, and judiciously described what he observed.

Dr. Astruc, professor at Paris, published an excellent treatise on the lues venerea. It is, perhaps, the completest history of a disease that ever was compiled : it contains almost every thing useful that has ever been written on the subject ; and besides the above, what is indeed the most valuable part, the author's own observations and judicious remarks. It is regarded by the best judges as a complete work. Some authors have published the history of other diseases in a like manner, but with little success: the reason
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is plain ; they wanted the judgment and abilities of Astruc. From the above the reader may judge of his other productions, in all of which are many good things : in some of his performances they are, perhaps, too much darkened by theory.

This gentleman has acquitted himself as a professor to the intire satisfaction of his students.

Before I conclude, it will be proper to take notice of a gentleman whose name and deserts are well known in medicine.

Dr. Albert Haller, late professor at Gottingen, has published Boerhaave's Lectures on Physiology and Pathology, with a commentary of his own. We admire his industry and learning, tho' his quotations are rather too numerous,
often

often needless, and even some of them improper. His criticisms are not seldom injudicious, sometimes groundless, and his censures of some eminent authors are by much too severe: yet this author is not without merit; he has been indefatigable in quest of knowledge, and sometimes successful in acquiring it: he has profited by every improvement made in his time, and is publishing a good system of physiology. We are also indebted to him for some useful observations in pathology, and practice.

INTRODUCTION.

THE following Treatise is intended to shew in what manner diseases are distinguished, and to narrate the symptoms proper to each. In order to this, I shall give a short description of every disease; then I shall consider separately the appearances which indicate the return of health; those that forebode the tediousness of the disease, or changes into other diseases; and such as for the most part denote approaching death. Before I proceed, to premise a few general observations may prove useful.

Men, for the most part, are more vigorous, both in body and mind, than women: women have generally greater sensibility in both.

The tender bodies of infants are easily affected by diseases, soon hurt, nay often destroyed, or surprisingly restored to health: hence we ought to be cautious in predicting the event of diseases in children. From infancy, as the body is continually increasing to puberty, and after this till it is full grown, diseases act differently according to the age of the patient.

As frequent experience has confirmed some truths in general, the following observations may well be depended on: That in young people, the superior parts of the body are commonly affected with diseases; in adults, the breast, and parts placed below the hypochondres; in old people, the bowels in the lower belly, and the joints.

The knowledge of the different temperaments of adults is useful to the physician, as the plethorick, cholerick, or melancholick, are very differently affected, though labouring under the same disease at the same time.

INTRODUCTION. 3

Many severe symptoms, nay often fatal ones, take their rise in diseases from the sensibility of the nerves.

The passions of the mind not only affect the body, and pervert the course of the disease in many cases, but sometimes acting with a fury not to be restrained, destroy many patients. This in women in childbed, and others, I have often observed with astonishment.

Fortitude of mind greatly supports under diseases; while the pusillanimous fall a sacrifice to their fears.

Those who excel in genius, are for the most part exceedingly sensible.

Purity of morals greatly secures health; and when diseases happen, it in many cases facilitates recovery.

Though we should give no credit to the power of the soul in diseases, yet to deny the happy influences of a quiet mind, is belying our senses. Exercise and tempe-

4 INTRODUCTION.

rance secure our health, and prolong our existence; sloth and intemperance ruin our constitutions, and shorten our lives. The knowledge of what the patient has been accustomed to, is of great use to us, in discovering diseases, directing our predictions, and aiding us in the cure.

We must diligently inquire in many diseases, whether they are accidental, or hereditary.

The strength of the sick is ever carefully to be observed; and as the physician is often called after the disease has continued for some time, he ought to inquire particularly into every thing that has preceded. Let him ever be attentive to the seasons; the epidemical diseases prevailing; to the state of the atmosphere, endeavouring to find out with certainty whether it is pure, or infected with hurtful particles; to the place in which he is situated, and the diseases that may hence result, or the endemics;

micks; if any irregularity has happened, or does happen, from what the patient takes, whether food or medicines; in short, he ought to consider every thing by which the knowledge of the disease, or of its exit, can be obtained.

But in order to proceed with method, I shall first give a short account of each disease, only reciting the essential symptoms by which the disease may be easily distinguished from all others: for though nature shews great variety in the same species of diseases, as well as in her other productions, yet the accurate observer may here, as well as in other sciences, note some essential difference to guide him in his judgment.

Then I shall consider with care the several symptoms that have served to form a regular prognostick; the observations of the ancients, with those of the moderns, and whatever a long and extensive practice

6 INTRODUCTION.

has confirmed and taught me, shall be added.

If the several quotations were given, it would swell the book to an unreasonable bulk ; and as usefulness is what I have constantly aimed at, I have been careful to insert nothing but what is well supported.

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ON

F E V E R S.

C H A P. I.

O F F E V E R S.

IT is proper to premise, that every fever, whether acute or inflammatory, is preceded by a chillness and shuddering, and afterwards is constantly attended thro' the whole of its course with a heat greater than that of the same body in a state of health: the pulse is much altered, and generally quicker.

The course of fevers is very properly divided into the beginning, increase, height,

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and decline ; the crisis happens when the fever is at the height.

Accurate observers have believed, that a fever is an effort of the organs of the body to throw off some offending matter by an evacuation, or by repeated circulation to assimilate and render inactive whatever particles are offensive.

Others, persuaded that the organs of the body, or mere mechanism, is unable to conduct these attempts properly, have placed the soul as a guide, and extended her salutary influence to every part of the body.

Was the first the case, crises would happen while the vital force is greatest ; and in the second, while the soul is most sensible ; yet we often find crises happen while the vital force is small, and the soul insensible. How unfit are the organs in the exhausted body for throwing off noxious matter ! how incapable an insensible soul for directing its efforts !

As I only propose to treat every part of my subject in the manner of an observer, I shall not meddle with theory ; it is sufficient to my purpose to take notice, that the class of fevers of which I am about to
treat,

treat, persist without any intermission till they are judged by the crisis, unless in such cases where the severity of the symptoms puts an end to life before the time of the crisis. In order to render this more intelligible, I shall make mention of a few things with regard to the crisis, or solution of diseases, in the ensuing chapter.

C H A P. II.

Of the Crisis.

TH E crisis in fevers is that change by which the disease tends to health, to other diseases, or death. In particular cases, it is accompanied with great disorder of both body and mind, and followed by some remarkable evacuation; in other cases, no disorder of either body or mind is observed, neither does any sensible excretion happen, and notwithstanding, the sagacious physician with pleasure perceives approaching health, attentively views another disease beginning, or sees, though unperceived by others, the advances of death.

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Many of the moderns have doubted concerning the reality of crises. Shall I attribute this to their inattention in practice, the improper application of medicines, or the ill-founded belief that the crisis is always attended with a sensible disturbance? In the books of the ancients they are almost ever found; and the observance of them has greatly contributed to the forming of the art of predicting: and though this art is called *conjectural* by Hippocrates in one part of his works, and *uncertain* in another, yet how great a proficient he was in it himself, and how useful the maxims are which he has left us, the ablest practitioners in all ages have unanimously declared with candid approbation.

Van Swieten, whose authority is indisputable, gives the following testimony in behalf of crises: That when he had compared the maxims of Hippocrates and Galen with what he had observed in diseases, he found with great pleasure, that what they had observed with regard to crises was most true.

Dr. Freind has taken notice, that the observations of Sydenham in England agree exactly with those of Hippocrates, that
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preceded them many ages, and were made in a very different climate.

That there are some differences is certain ; but they evidently result from Sydenham's not having understood the diseases described by Hippocrates. See the conclusion of this volume.

The learned and candid Dr. Mead, after great experience, asserts, that of all solutions of fevers, the most desirable is by sweat ; next to that by stool and urine ; the worst is by an hæmorrhage. Abscesses, if they happen in the decline of the disease, and suppurate kindly, are salutary.

The late Dr. F. Hoffman has declared, that every large evacuation which happens on the critical days, does not promise health, but those only that are followed by diminution of the symptoms, when the pulse becomes softer and quieter, the breathing freer and less anxious, the mind more easy, the urine thicker and depositing a sediment, the body rests better, and the sleep is more peaceful. To the above might be added the testimonies of Drs. Sydenham, Baglivi, Boerhaave, and many others.

Although I intend to take notice of the critical day in every particular disease, yet
here

here let me observe from the father of medicine, that the seventh day is the last in peracute diseases; the fourteenth is to be observed in acute; and after these, the twentieth, the twenty-seventh, thirty-fourth, fortieth, which is the last of the critical days in acute diseases; then the sixtieth, eightieth, hundredth, hundred and twentieth; which is the last of the critical days, according to the doctrine of Hippocrates.

He has likewise observed certain days, in the course of fevers, which indicate that the crisis will happen on the critical days. Thus the fourth day is an index to the seventh, the eleventh to the fourteenth, &c. Warranted by many observations, I can truly assert, that though ordinarily salutary crises of diseases happen precisely on the critical days, yet by happy constitutions and favourable circumstances they sometimes precede the stated times; and from weakness, a bad habit of body, unlucky circumstances, or other diseases supervening, they are in some cases retarded. The efficacy of medicines may have a considerable effect both in promoting and retarding the crisis; though even by all the
above,

above, the difference in the time will not be considerable. Neither does Hippocrates confine crises to the above-mentioned days, as has been alledged by some, but has observed, that they often happen on the equal days as well as on the unequal, and with all the variety above noted. See his observations on Epidemics, at the end of this Treatise.

It may be observed, that the censures which we meet with of Hippocrates's doctrines, are generally founded on the inattention and ignorance of the critic. It is not easily to be believed, that so judicious and candid an observer could impose on his readers either mistakes or falsehoods. I now proceed to fevers, as they appear in practice.

C H A P. III.

Of the Day Fever.

THE ephamera is so called from its duration, seldom exceeding a natural day, or twenty-four hours.

It begins for the most part with a chillness, or small shivering of a short continu-

I ance;

ance ; a heat greater than that of the body in health succeeds ; the head feels heavy ; the pulse is more frequent, quicker, and weaker than in health, though generally equal ; the breathing is greater and more frequent ; a sweat comes out and continues, which gradually relieves the symptoms, and puts an end to the disease.

But if the above symptoms are severe, and the sweat persists without relief to the sick ; if it is attended with thirst ; the disease will continue for many days, or change into a continual fever.

If after the time of the fever, the heat daily increases, with a dryness of the skin, a quick and frequent pulse, a hectic is formed.

To be able to predict the event of the fever, it is proper to consider the causes. These are reckoned, the passions of the mind, too violent motion of the body, abuse of the non-naturals. To these I add various kinds of infection communicated from such as are in fevers, &c. for we find in experience, that nature, by means of this short fever, throws off the offending matter in good constitutions by profuse sweats. The cause being found
out,

out, the lesser or greater degree of severity in the symptoms readily indicate whither the fever tends; for it is seldom fatal, particularly in the first attacks.

C H A P. IV.

Of the Continual Fever.

THE causes of the day-fever often precede the continual; but the symptoms are more severe; heat, redness and weariness of body, swelling of the veins, great heaviness of the head, difficult and frequent breathing, profound though restless sleep, sufficiently distinguish it. A compleat solution often happens on the third or fourth day by a bleeding at the nose, and a gentle easy sweat continuing for some time after. A perfect crisis happens often the seventh day by a sweat; a profound sleep, easy breathing, and soft pulse, or quiet sleep, diminution of the heat, and moist skin, are often sure signs of the crisis being compleat and salutary.

When the symptoms persist beyond the critical days without any abatement, there often happens dangerous inflammations of
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the brain, throat, lungs, or pleura ; each of which diseases are known by their essential symptoms. See Inflammatory Fevers.

C H A P. V.

Of the Continual Putrid Fever.

THIS fever is distinguished by a more intense heat than any of the preceding, wakefulness, great thirst, swelling of and noise in the belly, an asthma, tickling and itching of the nose, and dullness of sight.

The crisis often happens on the seventh or fourteenth day by an hæmorrhage, and by all the above ways which are made mention of on the continual fever. If the sleep is greatly disturbed, livid or purple pustules break out ; if the hypochondria are blown up, and stretched or tense, death always happens ; that is, gangrenes in the bowels put an end to the lives of the patients. After having been forewarned by me, let the physician timeously endeavour to prevent what cannot be remedied, if it is once formed.

C H A P,

CHAP. VI.

Of the Ardent Fever.

THIS fever begins with great cold, &c. and is known by a continual burning heat, greatest about the breast; an insatiable thirst that often ceases of a sudden; a dryness of the skin, nose, mouth, and tongue; a puffing and quick breathing; a loathing; an inclination to vomit, or vomiting; oppression at heart, tossing, great weariness, a small cough, a sounding voice, raving, frenzy, watching, lethargy, convulsions, and an increase of the symptoms on the unequal days.

The solution generally happens in those called pure the seventh day, in others the ninth, eleventh, fourteenth, &c. even to the forty-second, by stool, sweat, vomiting, abscesses, urine, spitting up of thick tough matter, hæmorrhages, or critically by a rigor or stiffness. It is a bad sign, when the swallowing is difficult, the face red and sweating, or when a raving changes into an inflammation of the lungs.

The following are mortal symptoms for
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the most part : a small hæmorrhage from the nose the third or fourth day ; a spitting or pissing of blood ; black urine ; when the urine is made in small quantities and thin ; coldness of the extremities ; when one or both parotids swell, and do not suppurate ; too copious stools, and a trembling that ends in raving.

C H A P. VII.

Of the Hætic Fever.

THE hætic fever is known by a constant heat considerably encreased after meals and in the afternoon ; the pulse then is greater and quicker. When examined long after a meal, it is small, frequent, and quick ; the skin is dry ; the urine in colour scarcely differs from the same in a state of health.

An hæmorrhage is generally the surest and best crisis of this fever, though the time of its happening cannot be determined ; that by the nose is most common, though those from other parts have often been found salutary. I have known a copious discharge by the natural parts in a
woman

woman prove a complete crisis, in a desperate case. This fever is also sometimes carried off by sweat, urine, or a diarrhœa, the putrid matter passing by the skin, kidneys, or guts. Abscesses sometimes give intire relief, particularly those that open externally; yet it must be acknowledged, that though they in particular cases prove critical, yet they are commonly the means of wasting the patient till death ensue.

But if no crisis happens, and the fever continues till the urine is oily, small in quantity, and red, or blackish; when exercise becomes uneasy, a heat is constantly felt in the hypochondria, and the pulse is quick and weak; when there is a great loss of appetite and strength, frequent and copious stools, or profuse sweats; when the feet swell, a dryness and pain of the throat with a change of voice happens; whatever hopes the unhappy patient may entertain, death is fast approaching.

A D D I T I O N S.

IN the short description I have given of fevers, there are some symptoms which may properly be called essential to each of

the fevers, as they always continue in such a manner as to ascertain the kind of the fever, though the degree varies from peculiarities in the constitution or circumstances of the patient. The first of these is the heat, the degree of which proper to each fever, the experienced physician may easily distinguish without the assistance of a thermometer.

In the day-fever the heat is greater than that of the same body in health, though small in comparison of what prevails in the continual fever; but the heat of the continual fever is considerably less than that of the putrid fever; and the degree of heat is so intense in the ardent fever, and so easily distinguished from the heat of any of the other fevers, as to have obtained it the name of ardent or burning fever.

The heat in the hectic is different from the heat of the other fevers, and is always increased in the afternoon and after meals: it shifts and varies often, particularly when putrid fevers happen, which are to be found in many cases.

Let the inexperienced physician carefully weigh every symptom as well as the heat, particularly the pulse, which though it
varies

varies often in almost every fever, yet there is a particular kind of pulse peculiar to every species of fever, which will greatly help us to distinguish it. This, though not easily described, so as to be known to the inexperienced, yet is readily distinguished by the judicious physician, who has accustomed himself to observe attentively every circumstance of his patients. Notwithstanding the physician's being convinced of the kind of fever from the heat and pulse, let him use the assistance which the other symptoms afford ; nor ought he to form a judgment from a few particulars, but from the joint result of the whole, after every thing has been duly pondered. This will not be difficult to him, if he peruse with attention the short descriptions given, which include the most essential symptoms in every kind of fever. They are such as experience warrants, and nature constantly exhibits, if we cautiously observe. They are not taken from a single history, which, though never so carefully written, is no more than a particular case ; whereas the symptoms which I have made mention of are selected by the best observers, and have been confirmed by

uninterrupted experience, since the earliest observations on diseases, down to the present time.

Left the young practitioner should be prejudiced by authority, let him keep a regular journal for several years, and mark down particularly every symptom that happens through the whole course of each fever. At the same time let him endeavour, from his knowledge in physiology and pathology, to account for every appearance, and form a prognostic, which may be daily marked down on a margin left on the journal for that purpose; and after long experience, by often comparing what really happens with what he expected or predicted, he will be able in time to form a judgment founded on reason and experience, which are the best supporters of the art of healing, and the surest means of succeeding in practice.

An ingenious physician who has thus informed himself, will never be at a loss in any occurrence; and if his knowledge in medicine is equal to his knowledge in diseases, this will enable him to give relief to his patients in every circumstance where medicines can avail him.

How

How much superior must such a physician be to the empiric, who having only learned the name of a disease and a particular manner of treating it, blunders on through life without deviation from his wonted course, the slave of prejudice, obstinately determined against improvements, without reaping any advantage from experience, or obtaining assistance from reason!

It is now proper to proceed with the symptoms, many of which are common to several of the fevers of this class, especially to the four kinds which are first described. This method of treating particularly of the symptoms was first introduced by Hippocrates. His observations, which he collected from many cases, when applied to the test of experience, are found to be so true and useful, that physicians of all ages have with one consent admitted them as the very best which could be taken from attentive observation; and to this the wisest among the moderns readily agree, even after two thousand years experience.

Here, perhaps, it may be objected by some young physician, vainly puffed up with the doctrine of a college, “that they are not to be met with in every case”—

True—"and that particular occurrences contradict even the best established among them."—True.—"To what purpose then preserving as maxims, what there are so many objections to?"—These obvious appearances are of more importance to the art, than if you should collect all the varieties which are objections to them, and all the monstrous appearances that have ever been observed in nature.

I shall endeavour to illustrate this, by a true story. An eminent professor in a certain university took it into his head to find fault with the descriptions of the anatomists as inaccurate. He falls to work, dissects a body, describes every part as he finds it, and publishes the whole as the best book of anatomy ever made public. Ignorant youths receive it as such, while experienced anatomists consider it as the anatomy of a particular body, but smile at the vanity and ignorance of those who regard it as a compleat system of anatomy. "When the author of this book, say they, shall have dissected a hundred bodies or more, as we have done, he will become more judicious, and less vain." I come to the particular symptoms.

C H A P. VIII.

Of Coldness and Rigors.

IT is of much importance to the physician carefully to observe the first attack of fevers ; for from the degree of cold and shivering no small knowledge may be obtained ; the heat and other symptoms that happen through the whole course of the disease, in their degree often bearing a certain proportion to the cold in the first attack.

I propose now to give such observations as authors have drawn from experience, in selecting of which I shall pass over in silence all such as seem to result from theory, or have been made with a view to this. I shall take such as evidently belong to continual fevers, and reject all those that belong to other fevers, reserving them to their proper places.

From great coldness death either happens, or excessive heat. VAN SWIET.

In the course of the fever, if the coldness returns, it either presages the long continuance of the disease, its malignity, or death. ALPIN *Prefag.* May

May it not here be reasonably supposed, when this does not happen on the critical days in an ardent fever, that either abscesses are formed, or a new fever coming on?

As the several symptoms that follow are the result of weakness, before forming a judgment we ought attentively to examine the strength of the patient, as this will assist us to make a sure prediction.

Coldness with a suppression of urine is dangerous. HIPPOCRATES.

It is fatal, when joined with a coma, raving, forgetfulness, deafness, blindness, convulsions, trembling, speechlessness, cold sweats, and evacuations that give no relief. *Id.*

We may properly consider the above as the certain observations of the accurate Coan; but let us not superficially confide in these: the known causes of the coldness, and condition of the sick, will often inspire us with well grounded hopes, even in a deplorable state.

I shall not examine the rigors, or that degree of cold which brings on a stiffness of the body.

This happening on the critical day puts an end to the ardent fever. HIPPOCRATES.

When

When it follows an hæmorrhage of the nose, denotes approaching health. VAN SWIET.

If after the crisis the next day a shivering comes on without a cause, and a restlessness follows, it indicates an hæmorrhage. HIPPOCRATES.

On the sixth day, are of bad omen. *Id.*

Rigors with great anxiety are bad. *Id.*

Often happening to the lethargic, are fatal. *Id.*

If the rigors return often without abatement of the fever, when the strength of the patient is gone, death ensues. DURET.

Rigors are fatal, when the patient does not know those around him, or forgets what happens. HIPPOCRATES.

When the patient is restless and stupid, the urine passes involuntarily, and the disease becomes violent in the night, it is of fatal presage. *Id.*

When with coldness, fear and grief without a cause, the patient dies convulsed. *Id.*

Joined with convulsions of the neck that pull the head backwards, are fatal. *Id.*

Also with a head-ach, and weakness. *Id.*

Duretus has observed, that the above-mentioned symptoms are sometimes relieved

lieved by the menstrual discharge, the hæmorrhoids, or varicous swelling of the veins. Instruction in medicine is communicated from general observations ; neither are particular exceptions any objection to a doctrine. The humane physician notes with joy such unexpected events as disappoint his well-grounded fears.

C H A P. IX.

Of Heat.

THIS ascertains both the kind of the fever, and the degree of its severity. It is a bad sign when it is excessive about the vitals, as it indicates that the circulation is mostly confined to these parts, and carried on with difficulty ; the vital force having failed in circulating the blood through the extreme parts of the body.

C H A P. X.

Of Trembling.

TREMBLING of the lips, in the increase of an acute fever, denotes dreadful convulsions impending ; but in an ardent

ardent fever, the third day after signs of coction, there will follow after half an hour a salutary vomiting. BOERHAAVE.

When from strong passions of the mind, the cure is difficult, nay often impossible. VAN SWIET.

Unless when they accompany or precede critical evacuations, they are of bad omen. *Id.*

Those are only fatal, that happen on raving. ALPIN.

Trembling on an inflammation of the brain, threatens sudden death. HIPPI.

They forebode death to the frantic. *Id.*

The above are but too often observed: let the physician consider them as presages of sudden danger, and exert himself in order to save the sick person.

C H A P. XI.

Of the Pulse.

THE motion of the blood in the arteries propelled by the heart, distends their coats: this, and the reaction on the blood by means of the contraction that follows, constitutes the pulse.

I shall

I shall mention the opposite extremes, as observed by several practitioners, that they may be the better understood. But here the Father of medicine can furnish little, as he was almost intirely ignorant of the pulse, or, at least, made but little use of it as the means of presaging, or the foundation of either judging or predicting in fevers:

A strong pulse in acute fevers indicates approaching convulsions, ravings, inflammations. REGA.

In the state of the fever threatens ravings, phrenzy, or an hæmorrhage. *Id.*

The above can only be considered as a relative term, regard being had to the degree of strength in the pulse which is proper to the particular fever.

A quick and weak pulse forebodes much danger. If weakness is joined to undulation, with the blood moving seemingly to the heart, is a sign of a malignant disease, or approaching death, as it proves that the contracting power in the arteries is greater than the force of the heart; but as this may be observed in faintings, the physician should be cautious in predicting, when he may be deceived.

A hard

A hard full pulse indicates inflammations of membranes, or their violent distension. An idea of this pulse may be acquired from studying the pulse in a pleurisy, or in the inflammation of any membranous part; and this pulse will always be found in such diseases, while the vital force is unimpaired.

The soft pulse shews a crisis about to happen, or already happened, unless the fever be changed into an inflammation of the lungs, or the patient is very weak.

The following observations are given on the authorities annexed; in experience great varieties are found, without fatal consequences.

The intermitting pulse, according to Galen, if it last the time of one pulsation, many old men and boys escape, but not one youth.

Ballonius asserts, that if it intermits the time of two strokes, it is always fatal.

If unequal in the state of the fever, forebodes much danger. HOFFM.

Every sudden change is a bad omen. ALBERT.

The sudden change of a frequent pulse into a slow, in every fever, is fatal. REGA.
Before

Before the physician adopts this, let him attentively consider the change, and inquire into the cause of it, which, when known, may often inspire him with hope, or direct him to a proper cure.

Solano's accurate observations on the pulse, which are confirmed by several instances in experience, deserve our attention. I shall only make mention of them here, as I intend to give them more fully, when I come to the crises which they indicate.

First, The rebounding pulse indicates a future critical hæmorrhage by the nose.

Secondly, The intermitting, a diarrhœa.

Thirdly, The unequal rising pulse, a sweat.

C H A P. XII.

Of the Breathing.

HIPPOCRATES has observed, that we ought carefully to consider this, for its power is great in every fever that is judged in forty days. When great and seldom, it indicates a raving; if small and frequent, it denotes approaching death. *Id.*

When the breathing is often interrupted, as in children after being whipped, it threatens convulsions. *Id.*

When the sick are obliged to sit upright from difficulty of breathing, if it is painful, small, quick, and unequal, it is generally fatal: and there are but few instances met with in practice, which contradict the above.

C H A P. XIII.

Of the Tongue.

BY inspecting the tongue, we may judge of the time in acute fevers; for it is generally white in the beginning, pale in the increase, and yellow or black in the fever. When it continues soft and moist in fevers, it is a good omen. When it is rough and ill-coloured, or covered with white saliva about the line that divides it along the middle, it is a sign of a remission of the fever; if the matter is thick, the same day; if thin, the following day; if very thin, the third day. DURET.

Baglivi was of opinion, that its dryness shewed the degree of inflammation. It is

D

a bad

a bad sign when we find it stiff, dry, parched, rough, and chapped. The fever is often fatal when it is dry, attended with a loathing, and the patient without thirst.

If pustules the size of vetch-seed break out on the tongue, the patient shall die the following day. RHAZ. *ad Alm.*

Coldness of the tongue is soon followed by death. RIVER.

Blackness in an ardent fever, presages inward inflammations. HOFFMAN.

C H A P. XIV.

Of Thirst.

THE diminution of it in fevers, if accompanied with other good symptoms, promises recovery.

When it ceases all at once without any apparent cause, it forebodes danger; when it continues or increases after a crisis, it is truly to be feared. If in the state of the fever the thirst is great, the tongue parched, the cheeks collapsed, the eyes hollow and dim, death is at hand.

C H A P. XV.

Of Deafness.

DEAFNESS binds the belly, and a looseness carries off the deafness, as does also an hæmorrhage of the nose. BAGLIVI.

It is carried off by bilious stools. HIPPI.

After the seventh day, with other good signs, denotes recovery. BAGLIVI.

With crude urine forebodes a raving; with digested urine a critical hæmorrhage. ETMULLER.

With crude urine and a miliary eruption, is soon fatal.

With a weight of the head, cording of the hypochondres, and shining of the eyes, betokens an hæmorrhage. HIPPI.

C H A P. XVI.

Of Sweat.

I Shall now consider the critical evacuations, and begin with sweat.

Dr. Freind has observed, that in the

works of Hippocrates sweats are never made mention of as the means of curing, but as marks for predicting; as likewise, that they alone seldom recover patients. But let us hear Hippocrates declaring, that sweats happening on the third, fifth, seventh, ninth, eleventh, fourteenth, seventeenth, twenty-first, twenty-seventh, thirty-first, thirty-fourth days are critical: those that happen otherwise, indicate pain, the long continuance of the disease, or relapses.

Jacotius has observed, that the sweats, when about to happen, are indicated by a suppression of urine and bound belly, no symptoms of an hæmorrhage or vomiting appearing; but especially by a wave-like and soft pulse, a raving, a redness of the skin, and a kind of hot vapour that was not before. This last is rather the result of its being begun.

Solano, more attentive than others, has furnished us with the following observations:

That when the artery, after the first pulsation, sensibly urges forward, and strikes deep into the flesh, then it signifies a critical sweat in a few hours at farthest.

When two, three, or four consequent pul-

pulsations rise gradually above the rest, and each other, the quantity of the sweat will be in a compound ratio of the number and vigour of the rising strokes; four a copious sweat, two a moderate one, three an abundant one; these if with vigour.

This pulse Solano always found soft, except once, when he found it hard before a critical jaundice.

Unequal rising with a softness in the artery, is a certain sign of a future critical sweat.

Dr. Mead declares, that the most desirable solution of diseases is by sweat, next to stool and urine.

F. Hoffman has observed, that all sweats are salutary, if they change a quick, vehement, or hard pulse into a softer and quieter.

Profuse sweats in the beginning of acute diseases are of fatal presage, but after the crises, are sure means of health. VAN SWIET.

To both of the above assertions, there are many objections occur in experience.

Cold sweats confined to the head and neck are bad, as they are signs of the con-

tinuance as well as danger of the fever.
HIPPOCRATES.

When a diarrhœa supervenes with little or no relief, the patient always dies. BAGLIVIO.

When joined with shivering, the patients are seldom cured. HIPPOCRATES.

Hoffman has observed, that some have died under copious sweats on the critical days.

C H A P. XVII.

Of a Crisis by stool.

SOLANO observes, that the intermitting pulse denotes a future critical diarrhœa, and becomes a mortal sign only, when the strength requisite to perform it fails.

The space of one diastole denotes a small evacuation ; two an abundant one, or many stools ; and two and a half, the longest he observed, a very copious one.

A tension of the artery joined, is a certain sign of a critical vomiting superadded to the diarrhœa.

A greater or less tension denotes a greater
or

or less evacuation by vomiting. A softness of the artery joined with the intermission, is a certain sign of a crisis by urine with the diarrhœa; the quantity of urine is indicated by the degree of softness.

A diarrhœa in the beginning of acute diseases, if violent, is a deadly symptom; after the crisis, a salutary one. VAN SWIET.

I have met with several objections to the first position in practice.

C H A P. XVIII.

Of Crises by Urine.

THE most desirable crises are by stool and urine. MEAD.

Rega observes, that sometimes a plentiful flow of urine happens critically, and relieves the patient.

In fevers brought on by violent exercise or toil, much white thick urine passing the fourth day proves a crisis. HIPPOCRATES.

The urine that deposits white light sediment constantly through the fever, shews that it shall be of no long continuance. *Id.*

With a copious sediment, frees from raving. *Id.*

Copious and white urine with a pain in making on the critical day, if it deposites much white sediment, cures, and removes abscesses. *Id.*

When more plentifully made on the days which Hippocrates calls the indexes of the critical days, the sediment copious, and white, or ruddy; if it relieves the patient, it indicates a complete crisis on the critical days.

Hoffman has asserted, that there is no sure mark of recovery in the continual fever, unless the signs of coction appear in the urine. I have observed several cases which contradicted the above.

Thin watery urine is bad in bilious or acute fevers. GALEN.

When they deposite no sediment, and the patient is strong, it forebodes the long continuance of the disease; and when the patient is weak, it presages death. When the urine in an ardent fever is thin and small in quantity, joined to a bound belly, it is a fatal sign. JUNCKER.

When the urine often changes its appearance, it denotes the disease to be of long continuance. HIPPOCRATES.

C H A P.

C H A P. XIX.

Of Hæmorrhages.

TH E worst solution of fevers is by an hæmorrhage, whether it proceeds from the nose, or from any other part. MEAD.

Large hæmorrhages free from diseases. HIPPI.

An hæmorrhage by the nose is predicted by great pains of the neck, and redness of the eyes. *Id.*

As also by a tension of the hypochondria, heaviness of the head, and deafness attended with lassitude. *Id.*

If a delirium in diseases comes on suddenly from anxiety, it indicates an hæmorrhage or flow of urine. *Id.*

Solano observes, that a rebounding pulse indicates a future critical hæmorrhage by the nose; at every thirtieth pulsation, commonly in four days; sixteenth, in three days; eighth, in two days, or two days and a half; at the fourth, third, second, or is continual, in twenty-four hours: the shorter the periods, the nearer the hæmorrhage. When it returns in variable shifting

ing periods, the time of the hæmorrhage cannot be exactly determined. When the rebounding very briskly follows the first stroke, the hæmorrhage is at hand; and if it should delay a little, it will appear on the patient blowing his nose. The quantity is foreseen by the vigour with which the artery rebounds, compared exactly to the force of the first stroke. Thus when the artery rebounds with less force than the first stroke has impressed on the finger, the hæmorrhage is to be small, and *vice versâ*. When the rebounding and first stroke are equal, the hæmorrhage is to be moderate. According as the blood flows, the rebounding slackens gradually, till it disappears soon after the crisis. If after the hæmorrhage the rebounding should continue, or appear again, it denotes another crisis. When more evident in one wrist than in the other, the blood frequently flows in greater abundance from the nostril of the same side.

I have often observed in diseases an hæmorrhage happen critically, when the blood was much blacker than that from arteries, and gave great relief to the sick. VAN SWIET.

An hæmorrhage in an ardent fever followed by a rigor, indicates approaching health. *Id.* If

If a convulsion or hiccough follow a large hæmorrhage, it is fatal. HIPPOCRATES.

Every hæmorrhage that does not relieve the patient, is bad. *Id.*

If great coldness succeeds a too copious hæmorrhage, it is fatal. *Id.*

A pissing of blood is fatal. BOERHAAVE.

C H A P. XX.

Of Vomiting.

A Vomiting in the beginning of fevers, indicates a crisis by a diarrhœa.

A cloud or darkness seemingly moving before the eyes, shews a bilious vomiting. HIPPOCRATES.

Vomiting of pituita and bile mixt, is most useful. *Id.*

Duretus asserts, that the indications of bilious vomiting presages death soon to happen: it is likely that he had found this confirmed to him by several cases in practice.

C H A P. XXI.

Of Abscesses.

THOSE who, when recovering from diseases, feel a pain or weariness in any part, there abscesses happen. HIPPOCRATES.

When they form in the glands, happen in the decline of the disease, and suppurate kindly, are salutary. MEAD.

I have often seen a fever cease when the inflaming matter was deposited; and tho' an angina followed, this discessed, and no fever happened afterwards. VAN SWIET.

It is not easy to conceive what is here meant by inflaming matter.

C H A P. XXII.

Of Pain.

IF it begins on any critical day, with the marks of coction; if it either precedes or follows any good evacuation, whether by an hæmorrhage, vomiting, diarrhœa, urine, sweat, or spitting; in short, if the patients

patients by the above or soon after find themselves better, the recovery is certain.

ALPIN.

Great pains of the ears are bad, as they threaten raving. HIPPOCRATES.

If a violent pain of the ear happens to young people, they seldom survive the seventh day. LOM.

This is not without exceptions.

Hardness and pain of the bladder, a great pain of the belly, with coldness of the extremities, are bad. HIPPOCRATES.

Pains of the hands and feet, and such as arise from the thighs, knees, or hams of the legs, are bad. *Id.*

Relief from those without a crisis that are about the loins and buttocks, if they reach the vitals are very fatal. *Id.*

Pains of the mouth of the stomach, and about the bowels, with convulsions, are fatal. *Id.*

Pains of the head with tension of the hypochondres, are bad. *Id.*

Pains of the head with windy vomiting, if the patient is restless and deaf, he soon becomes greatly mad. *Id.*

An oppressive pain of the belly in an ardent fever is fatal. *Id.*

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The above may be considered as certain observations candidly related: they are not seldom confirmed by experience; yet by the improvements in practice which have been made since the time of Hippocrates, we may in several cases ward off the danger, and save the patient. In order to this, let the physician be ever regardful of the strength of the sick, or of the vital force, as this is the sole foundation on which his hopes of success can rest.

C H A P. XXIII.

Of Convulsions.

CONVULSIONS happening and ending the same day are good; for they remove the fever the same day, next day, or the third day. HIPPOCRATES.

Distension of the nerves in acute fevers is dreadful, and dangerous. HOFFMAN.

Convulsions are indicated, when in deliriums the patients are silent and astonished, when admiration and fear is in their looks. VAN SWIET.

Convulsions with pains in the viscera are bad. HIPPOCRATES.

Galen asserts, that if a convulsion succeeds a phrenitis, it is fatal; nor did he ever see any cured, or hear of it.

Physicians of modern times are sometimes luckier than even Galen was, and the use of musk and some other remedies often produce very desirable effects, even in dreadful convulsions. The observations which I have here collected, are what from many years experience I can recommend to my reader as well deserving a particular regard, from their truth and usefulness. Many others might have been added from both ancients and moderns; but let the above suffice for the present.

A D D I T I O N S.

LEARNED Reader, the observations which you have found exhibited, are such as have been looked on to be the surest marks to guide us in our predictions; and I can truly assert, after having often had recourse to them in many particular cases, that they really are so. But let not my brethren pretend to infallibility. How many of mankind by so ridiculous a pretence have exposed themselves to contempt!

tempt ! I can honestly declare, that in some cases I have seen well supported predictions fail, though those were few in comparison of the number of those that answered expectation ; and I cannot help here observing, that the moderns who have been regularly instructed in every part of their profession, have it in their power to form surer predictions than any of the ancients ; as, besides the advantages which they enjoyed, we have many others, particularly the pulse and circulation of the blood, which, when well understood, afford us a sure means of estimating the strength of the patient, and discovering the part of the body that is affected. But besides the knowledge of the above, in justice to the moderns, let us acknowledge our great obligations to many of them, for their industrious scrutiny of the structure in every part of the human body ; for their ascertaining the uses of the several parts in a state of health, and the various deviations from this in a diseased state.

Physiology as well as pathology have been greatly improved by B. S. Albinus, Hunter, Monro, Haller, from their superior knowledge in anatomy. Whytt, Haller,

ler, Stahl, and particularly D. H. Gaubius, have improved pathology. But notwithstanding the assistance afforded both by ancients and moderns in every part of the science, it is practice alone that can render the physician master of his art, or enable him to predict with certainty, or prescribe with success. It is only from the greatest attention in practice, that the physician becomes judicious, and acquires that ingenuity which distinguishes him from the quack, who studies more the imposing on mankind, than advancing in the knowledge of his profession.

I must now admonish the inexperienced reader, that he is not to expect in every fever of the kinds that are described, all the symptoms I have narrated. The degree of the fever is to be carefully attended to; and from its mildness or severity, he is to expect fewer and better symptoms, or more and feverer. It may also be of use to take notice with regard to crises, that they are sometimes partial, and brought about by repeated efforts.

Thus I have seen in the beginning of a fever, great coldness; an immoderate sweat followed, and the urine deposited a sedi-

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ment on the first day. The fever continued great, without sweat or sediment in the urine, the second day, the fourth, and the sixth, though each of these days somewhat abated. The sweat came on regularly on each of the unequal days, and the urine deposited a sediment till the seventh day, when the fever was judged by a profuse sweat and concocted urine, and the patient recovered.

In some cases the change is little sensible, and the disturbances scarce perceptible. Thus sometimes when the strength seems to be exhausted, and the patient as one greatly fatigued falls into a profound sleep, hardly can we perceive him to breathe, or his pulse to beat ; and were it not for the warmth and moisture of his skin, we should believe him expiring. After a long continued sleep, he awakes free from the fever, and every thing indicates approaching health.

At other times, nature collects all her powers, and exerting her utmost efforts, seems to threaten destruction while she performs the crisis. Nor does she always succeed in this ; weakness of the whole body in some cases gives a great advantage to the disease,

disease, which ends in death: at other times, the weakness of particular parts gives occasion to fatal inflammations, the lodging of morbid matter, or the intire destruction of the parts.

In some patients nature, as if sensible of her inability to complete the crisis intended, seems to change her purpose, and brings on a new disease. When this happens, we must carefully estimate how much the constitution and strength of the patient may have suffered by the preceding disease; nor are we here to expect the same regular course, or sensible crisis, as when the organs of the body are unimpaired, on the attack of the disease.

Evacuations are the ordinary means nature makes use of in giving relief; but the relief is not in the proportion of the quantity of matter evacuated. A few drops of blood from the nose, a gentle easy sweat, vomiting, a stool or two, thick urine, a small and inconsiderable abscess, gives intire relief; a rigor, nay even convulsions are often salutary and critical: yet these very means carried to excess are often fatal. How many in fevers fall a sacrifice to excessive hæmorrhages, too copious sweats,

great vomiting, violent diarrhœas, or large abscesses ! How often fatal a rigor ! how direful convulsions ! how destructive ! It is the proper business of the physician to foresee the approach of such danger, and prevent mischief. But when nature proceeds steadily in her course ; when the patient bears the fever well, and the symptoms promise a happy crisis ; then let the physician encourage and assist her efforts ; nor ought he to attempt any thing that can disturb her operations, or pervert the course of the disease.

It now seems proper to take notice of the indications of a complete crisis having happened, and the marks of approaching health, which are more or less to be observed in every patient, though in very different degrees.

The first indication is, the diminution of the heat, or, more properly speaking, of the fever.

Secondly, The pulse becomes quieter, and softer.

Thirdly, The evacuations become regular, and in due quantity, proportioned to the strength, and a gentle breathing sweat generally attends them.

Fourthly,

Fourthly, The urine is whitish, and thick soon after it is made, and deposits a sediment of the same colour, or reddish.

Fifthly, The sleep is sounder, and the rest less disturbed.

Sixthly, The breathing is free and easy.

Seventhly, The look is changed, the mind tranquil, the thirst diminished, appetite daily returns, and health and strength gradually approaches.

That the crisis is incomplete, we may certainly conclude, if the symptoms that presaged it still remain, if the fever is little abated, nor the patient relieved.

Hippocrates has observed, that those fevers which do not end on the critical days, and with salutary symptoms, soon return. Frequent experience confirms the above truth; and from this he seems to have formed a doctrine, that nature, in order to complete a cure, required the time mentioned in each fever to fit the offending matter for its exit; and if the excretion was brought about sooner than the critical days, he pronounced the matter crude, and declared it unavailing as to recovery. But when the excretion happened on the critical days, he judged the coction com-

plete, and predicted the return of health as certain. The truth of the above is undeniable; but that of crudity and coction are mere technical terms, intended to illustrate his doctrine. When we compare the excreted matter that happens to be discharged in hæmorrhages, sweats, &c. on the critical days, with what is thrown off in the other days, we generally find them to be perfectly similar; and yet the one brings health, and the other oftentimes hurries the patient out of the world.

It may be objected, that I have made mention of none of the causes of any fever except the ephemera. This I purposely omitted, as it could prove of small utility to give a complete list taken from systematic writers, the observations of practical authors, or even from my own experience. The physician ought to consider the particular circumstances in the case of every patient, and from them form to himself a proper judgment of the disease: a rational theory will here greatly assist him. He should be well acquainted with the structure of all the parts of the body, their uses in the machine, and actions in a state of health, as this will enable him to judge of every

every deviation from a sound state, and point out to him the manner of restoring to the parts injured their proper functions.

I had once resolved to add to the observations which are here collected, a complete theory, in order to shew the reasons of the several phænomena ; but this I leave to the ingenious theorist, who may apply his reasonings to them as to a touch-stone, in order to discover their value : and let him at the same time remember, that most of them have stood the test of ages, and gained the approbation of the ablest physicians in every period. They were originally taken from nature herself ; and the more carefully we observe diseases, the more shall we be convinced of their truth. The greater progress the physician makes in practice, the higher will they rise in his esteem ; and the maxims of Hippocrates and his followers may justly be said to be the most valuable treasures which we possess.

Easy would it have been to have supported them by many cases from my own practice, reduced them into a regular system, and so published them ; but the name of a Hippocrates, Hoffman, Mead, Van

Swieten, &c. deservedly fix the attention of the judicious reader, and raise the value of the observation ; though even on the above authorities, I would admit nothing without being convinced of its truth.

In the preceding pages I have made no mention of the many deviations through the course of the several fevers there contained, and which have been described by authors under the name of Spurious. This seems more properly to be referred till I shall treat of epidemical fevers, when it will be necessary to take notice of these in a particular manner: only let me here observe, that most of the deviations in fevers are little else but changes into other diseases ; and the knowledge of these diseases into which they are converted, with the method of cure which is proper to each, will be the best guide to the physician. For instance, if an inflammation of the lungs happens during the course of a fever, it must be treated as such, notwithstanding the original complaint.

The same method must be followed with an angina, inflammation of the brain, pleurisy, &c. that is, they must be treated as original diseases of the same kinds, a
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particular regard being paid to the strength and other circumstances of the patient.

Permit me now to conclude this part with a few observations. And here I must candidly acknowledge, that notwithstanding the accurate observations of physicians, which have been continued without interruption for more than two thousand years, yet unforeseen events ever have, and perhaps ever will happen. These the most sagacious do not expect, nor are the best experienced practitioners able to prevent. Thus in a fever, a fainting seizes the patient, and death follows soon after. A rigor happens : we look on it as critical : the patient never recovers, but stiffens to death. A sweat makes its appearance on the critical day : we expect intire relief to our patient : it encreases till the exhausted sick person expires. Like accidents have been observed in hæmorrhages, diarrhœas, &c. &c. but, on the other hand, fatal appearances affright the most experienced, and soon after unexpected health approaches. A pissing of blood happens in a fever : the humane physician regards his patient with concern, as in the jaws of death : nature in a salutary manner changes her efforts, and health succeeds.

I could give instances from my own practice of many happy disappointments, which I have met with, even when every symptom foreboded destruction to the patients ; but these I have never regarded as any solid objections to the doctrines of Hippocrates, or the observations of the moderns. Alas ! what they have taught us with regard to fatal symptoms, is but too true, as every attentive physician will experience to his regret : and as the truth of them was confirmed to the ancients in too great a number of cases that occurred, so are they to the moderns, in spite of all the inventions and improvements that have been made in the art since the time of the great Coan even to the present age. Perhaps my reader will here doubt within himself, if I am acquainted with Dr. James's Fever Powder. To solve this, I here declare that I am, and many other boasted specifics besides, all of which I am firmly persuaded owe the greatest share of their reputation to the credulity and ignorance of mankind. I shall be sorry if the reader here understands me, as if I meant that James's Powders, Ward's medicines, &c. never did any good. I am convinced
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of the contrary, and know that these and other antimonial and mercurial medicines are of very great efficacy ; and that by their powerful operations, when they are judiciously prescribed, they are capable of producing very great and remarkably salutary changes. But at the same time, I am persuaded in my conscience, that a judicious physician will do much more real service to mankind; by medicines of less efficacy though more safety, in both acute and chronical diseases, than any quack in Britain with all his nostrums. The following comparison will place each in his proper light. The first is always sure to do no harm ; the last has in all ages done mischief. The former is candid and judicious ; the latter is rash and ignorant. The physician is anxious for his patients, the quack for his reward. The one is master of all the medical knowledge for two thousand years ; the other has learned a little of the efficacy of a particular remedy. The one is conversant in the works of nature, has studied their powers, and adores their Author. Charmed with virtue, he practises its purest lessons ; he lives with dignity and honour ; mankind
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are dear to him, and his greatest concern is for their welfare and interest. The other is void of principle ; and his practices are low, mean, and dishonest, merely calculated to fill his pockets.—But to what purpose the above comparison ?——Though Britain enjoys as able physicians as any in the world, yet no country is so much imposed on by ignorant pretenders, and boasted specifics.

It is now proper to attempt something in the way of practice, as it is of little use to know diseases without being able to remedy them. But here such difficulties occur, as are sufficient to deter any physician from the attempt, who has been accustomed to think and reason. He can never approve of a practitioner's confining himself to a particular method : the varieties which obtain in the circumstances of patients, and degrees of diseases, render it impossible to fall on any method or medicines which can prove effectual in curing every patient. Take then the following directions, as they are really designed to chalk out a general method of cure, which may serve as hints to the ingenious, and direct the inconsiderate to a rational and safe practice.

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INTRODUCTION

TO THE

PRACTICE in CONTINUAL FEVERS.

IN order to render this Treatise more useful to my readers, I shall endeavour to give such practical directions in general as reason and experience warrants. But let them not expect a method adapted to every particular case. To attempt this would prove too extensive; for it is not possible to describe within any reasonable bounds every case that can happen, or adapt a proper method of practice to every possible occurrence in continual fevers.

It is here supposed, that the practitioner has acquired an accurate knowledge of medicines, and their effects in general, so as to be able to suit them to the circumstances in cases that may occur. If he has

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not obtained such knowledge, chemistry will afford him great assistance in acquiring of it. But should he even have acquired this, it is not enough to secure success: he ought to take particular notice of the effect of the several medicines in each circumstances of the disease; he should prescribe them with an intention to produce a certain change; and this he ought to foresee in every patient, with the consequence of such an alteration: and though the manner in which the medicines act on the different parts of the body, is not certainly to be determined in every case, even after all our experience, yet their general effects are evident, and may be often foreseen in particular cases. But in order to judge of this, it is necessary that the apothecary make up the medicines precisely according to the physician's prescriptions; for if he changes the medicines, alters the quantities, or varies the forms, this may deceive the physician; in all of which unwarrantable freedoms will be taken, unless the apothecaries are laid under particular obligations to the performance of their duty, confined to their business, and not allowed to practise as physicians. For so great is

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the ignorance of some people, that they believe the apothecaries to be as intelligent as the physicians, because, forsooth, they possess their receipts. This belief, however ill-founded, the apothecaries support; and one who has scarcely knowledge enough to read a receipt, passes in the opinion of the vulgar for a great scholar, and an able doctor.

Thus modern 'pothecaries taught the art,
With doctors bills to play the doctor's part,
Bold in the practice of mistaken rules,
Prescribe, apply, and call their masters fools.

POPE.

Daily experience may convince the attentive, how ill-founded these gentlemen's pretensions are; and it is demonstrable, that such practice as theirs must do more mischief than good; *sed populus decipi vult*, &c.

In conformity to the prevailing taste, I ought to establish a theory before I proceed to the practice; but this I forbear, as it is to be found in some late performances, *ad nauseam usque*. I know very well, that some authors of no small reputation have talked of fermentation, ebullition, and putrefaction in fevers, which I cannot

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help

help regarding as groundless, or perhaps mischievous opinions; groundless, as no such thing is to be observed in living animals; and mischievous, as they are apt to induce an useless, if not hurtful practice. To give one instance or two, prescribe such medicines in a fever as are known to destroy fermentation in liquors, I need not mention the consequences that ensue. In inflammatory fevers, like Van Helmont's reason against bleeding, that drawing part of the boiling water from a kettle does not diminish the heat, or stop the boiling, you will soon lose your patient. As to putrefaction, though it may be observed in the *primæ viæ*, yet it has never been found to exist in any part, or in the whole body, while the circulation was carried on, or life continued; but as there is an evident tendency towards it in fevers, the reasoning from this is not of such bad consequence as in the other instances; neither is the use of antiseptic medicines in particular circumstances of fevers to be condemned. We observe in diseases, too great sensibility, and its opposite numbness, in the solids, weakness and rigidity, relaxation and tension; all of which depend on the particular state of the nerves.

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The blood is capable of great alteration from a sound state, and various are the changes which it undergoes in diseases. It becomes viscid, or acquires a lentor, either from a defect of circulation, as in the cold of fevers, which is particularly observable in the cold fit of intermittents ; or from too much circulating, as is evident from the blood which is drawn in inflammatory fevers, such as pleurifies, rheumatic fevers, &c.

It turns watery and thin, from want of circulation, caused by obstructions, &c. as in leucophlegmatias, dropfies, &c. or thin, with a tendency to putrefaction, from increased circulation, as plainly appears by its colliquated state in some fevers, and in the advanced state of phthifical hectics.

Thus far have I deviated from my plan to deal in theory. What I have taken notice of is evident, may prove useful in practice, and if well understood in particular cases, may enable us to prescribe with success.

Besides what is already made mention of, I may here observe, that nature, in order to accomplish her purposes, exerts herself in a particular manner in bringing a-

bout the several solutions in diseases. We should in fevers attentively take particular notice of this, lest we regard as the degree of the disease, what, though a violent, is really a salutary effort. For instance, after an anxiety has continued for some time in a fever, a delirium suddenly seizes the patient. Ignorant of approaching relief by an hæmorrhage of the nose, the physician prescribes bleeding, perverts the course of nature, and by weakening the body too much, hurts the patient. The same attention is to be employed in discovering with certainty the approach of other crises, and the same caution in preventing mischief from inconsiderate practice.

During the various efforts which nature makes towards different crises, the other parts of the body seem to be merely animated, while nature exerts her influence on the particular organs whose action is necessary to bringing about the change. This has been made mention of by authors under the appellation of *impetus*, *conamen*, *molimen*, *apparatus*, &c. I shall continue to call it *effort*, and proceed to observe, when these happen improperly, that is, neither on the equal or unequal days, which-

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whichever are proper to the fever, nor on the indices of the critical days themselves, they then indicate danger; for they shew us, that the course of the disease is disturbed, and thereby give reason to suspect that the crises will not happen on the critical day, nor in a safe manner. But let not the physician be too positive in his predictions on the first case that occurs, but attend the course of several fevers, which will enable him to judge with no small degree of certainty of all the subsequent fevers that shall happen during the course of an epidemic contagion.

In practice, whenever the physician finds the efforts of nature irregular, violent, and dangerous, he ought to change their course into one more regular, to mitigate their violence, and prevent the danger threatened. After he has acquired a thorough knowledge of the particular kind of fever that prevails, it may be in his power in several cases to prevent their forming, if he is timely called. When the patient is plethoric, evacuations will prevent danger. Is he exceedingly sensible? antispasmodics and refrigerants will much avail; and in such

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cases let the practitioner cautiously avoid ordering every thing that can irritate the nerves. Are the passions of the sick easily raised, and apt to be violent? keep at a distance every thing that can incite them. Is any violent passion raised? turn the attention of the mind to something else; or try the power of persuasion. But it would prove tedious, should I instance every useful practical hint that might be given.

I shall now confine myself to the fevers I have described. In these, some physicians of considerable eminence have commended a hot regimen; while others, not inferior in reputation, have urged the use of a cold regimen as preferable. Those expected every thing from alexipharmacs, and believed that the fever was to be carried off by the pores of the skin with the greatest safety; while these by cooling medicines mitigated the symptoms, and asserted, that in this manner only was the danger of the fever to be prevented, and its exit rendered salutary. Both parties appealed to experience, and gave instances of many cases in support of their several doctrines. I may here observe, that he must have had little practice who has not seen the usefulness of
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both methods in particular cases and circumstances; but extend either of them universally, and it must prove hurtful. In the beginning of many fevers, it is often in the power of the physician to remove the complaints, and prevent the fever from forming, even by a variety of ways which are safe and efficacious, and are well known to the learned and ingenious in the art. But as this has generally been brought about by medicines of great efficacy, and as their operation is violent, they may prove fatal when injudiciously used by the ignorant; so I forbear to make mention of them. I shall only take notice that one of this kind has been in pretty general use for many years. The reader will see that I mean Dr. James's Powder; nor need it astonish him that so many salutary effects are attributed to the use of it. Of twenty persons who, in the time of an epidemic contagion, believe themselves seized with fevers, there are perhaps not eighteen that are really seized. Now suppose that all the twenty take the powders, here are eighteen who believe themselves cured without any just grounds; and should the other two be really relieved, the credit of the whole will

be placed to the account of the medicine. How ingeniously contrived is this nostrum ! Should we suspect the doctor's abilities as a physician, we must at least acknowledge his merit as an arch prescriber, who has well founded his pretensions to success ; for though it may be alledged, that to cure fevers in every instance, is laying claim to an impossibility, yet nothing is more common now-a-days.

I cannot help here taking notice, that some of my brethren have passionately exclaimed against the use of vomits, blisters, &c. in fevers ; whereas I can sincerely declare, that in many cases I have not only relieved the patients by using them opportunely, but restored many to health by means of what De Haen condemns : however, it is certain that any medicine of efficacy used at random, must often prove hurtful.

The method of cure which I shall direct for every fever, is supposed to be used during its increase, or decline ; for as it approaches the crisis, if appearances are favourable, and the strength of the patient sufficient to complete it, the use of medicines ought to be sparing ; or perhaps in many

many cases it will be better to lay them aside all together, and attend to the efforts of nature; for in many fevers, by Divine Providence, the resources in nature, or the means of relief, are wisely proportioned to the end; and the event is intirely salutary. When it is to happen otherwise, it is commonly foreboded by some of the symptoms which are made mention of in the preceding observations; and when this is the case, the physician, warned of danger, must interpose the most effectual remedies to alter the course of nature, and preserve the life of the patient. Happiest are those physicians who have this ofteneft in their power! I shall make mention of few medicines except simple ones; the elegant compound forms directed by the colleges of physicians in the several dispensatories, are supposed to be known to the reader; and I can from experience recommend many of the formula's in the Edinburgh and London Pharmacopœias, as elegant, and well fitted for answering their several intentions. The physician ought to prefer these, when proper, to extemporaneous prescriptions, as it is to be supposed that the apothecary is well acquainted with the

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several materials, and with the manner of compounding them. The physician, besides the above advantages, can more easily discover when the apothecary deviates from the form, or uses unwarrantable freedoms in substituting succedanea. Here truth obliges me to acknowledge, that though the preceding reflections on surgeon-apothecaries are too true in general, yet there are exceptions; and I know several of them who are men of knowledge and merit, modest and cautious, careful in observing, and attentive in practice, and who prefer the advice of a physician to running the inconsiderate round of ordinary practice; and though they are judicious, yet in dangerous cases they are diffident of themselves, and ready to call assistance; conscious that operating in surgery, and preparing of medicines, is business sufficient for any man who would be master of his profession.

But lest my reader should imagine that I am writing a panegyrick with a view to my own interest, I hasten to the particular fevers of the preceding class.

A
T R E A T I S E
ON
CONTINUAL FEVERS.

C H A P. I.

Of the Cure of the EPHEMERA, or DAY-
FEVER.

AS it is the business of the physician to assist nature where his aid is necessary, so in this fever he ought to order diluting liquors to be used moderately warm; the patients should keep themselves quiet, and their minds easy.

If near the end of the sweat they are greatly weakened by too profuse an evacuation, which is sometimes the case, it
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will be proper to order sack-whey, wine, or some other cordial to be given, in order to strengthen them. When the fever is caused by infection of any kind, to the diluting liquor may be added such medicines as are the properest antidotes to the particular infecting matter, and at the same time are known to promote perspiration. Such remedies as are taken from vegetables are fittest; let them be properly adapted in quantity and efficacy to the condition of the patient; they may be infused with boiling water, and drunk like tea, with honey or sugar, and cream.

I have already described this fever, and made mention of its ending in an acute or hectic fever; but besides these, if nature is diverted from her course, and the sweat stopped in its progress, an inflammation of some particular part is the consequence; and this by the country people in Scotland is called the “weed sitting down on, or seizing that part.” When it fixes on any of the external parts, it is easily known by the heat, pain, and redness; when on any inward part, it is to be known by the symptoms which are peculiar to the inflammations of that particular part.

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The breasts, the natural parts, and ovaries in women are often the seat of ill-formed weeds or day-fevers ; and especially when these parts have been weakened by preceding ailments, whether obstructions, or too long continued evacuations.

After the patient has had several returns of the fever, the cold that precedes it is much greater than it was on the first attack, and the sweat that follows is more profuse ; or if inflammations ensue, they are more violent ; nay, often after it is become habitual to the patient, nature attempts little evacuation by the skin, but urges on the inflammation with violence ; and now it no longer preserves the type of the ephemera, but must be considered and treated as an inflammatory fever.

When day-fevers return often, and seize on any of the bowels, the danger is great.

Of the CURE of DAY-FEVERS, or WEEDS.

WHEN the symptoms are severe in the beginning, bleeding in all cases is useful ; the quantity to be let must be determined from the circumstances of the patient.

And as either an acute fever or inflammation

mation is to be feared, a cooling regimen and antiphlogistic medicines are to be ordered ; but if the sweat is stopped by any accident, and nature disappointed in her attempt of an evacuation by the pores of the skin, when the physician is timeously called, it will be often in his power to accomplish by the intestines what nature intended by the skin : the safest and most effectual method is by laxative medicines, such as manna, rhubarb, neutral salts, &c.

When either inflammation or fever persists, it will be proper to prescribe saline mixtures, spirit. minderer. nitre, acids, &c.

In some cases absorbents and antispasmodics may be ordered with success.

Diuretics in some particular constitutions will carry off the disease ; in others, blisters relieve the patients ; and vomits opportunely administered, will entirely remove the ailment.

In this disease, as well as in many others, it may prove of considerable utility to the physician, to inquire into the constitution, manner of life, and former diseases of the patient. If he has formerly been subject to frequent returns of day-fevers, and these
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have been followed by inflammations of any of the bowels, let the physician carefully watch over the several attempts of nature, and interpose with skill a suitable method of cure ; and when the patient is recovered, he must be warned to guard with care against every thing that can occasion returns ; and such diet and medicines ought to be prescribed, as are the most likely to ward off what in the end proves fatal to many, particularly to such as are advanced in years. I have seen in my practice many fatal instances from patients having neglected themselves under this fever, which is commonly attended with little danger at first ; though by the frequency of its attacks it becomes dangerous and deadly. A proper regimen directed to prevent the causes which bring it on, is the best security against its returns.

C H A P. II.

Of the CONTINUAL FEVER.

WHEN we attend to the symptoms proper to this fever, and the too frequent consequences which are inflammations of different parts ; if we consider

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the crisis that generally happens, either by an hæmorrhage or sweat; the indications of cure will be,

First, To mitigate the symptoms, when they forebode danger.

Secondly, To allay the heat, if too great.

Thirdly, To prevent that disposition of the blood which tends to inflammations; or if it is already formed, to change it so far, as may render the course of the fever safe, and the crisis salutary.

The first indication is answered by bleeding; for this diminishing the quantity of the blood, now become viscid from not circulating freely, as the symptoms sufficiently prove, we promote the circulation, and that effectually destroys the lentor. The proper quantity is best known from the effects. When it is drawn in due quantity, it mitigates the symptoms; if too copiously, it weakens the body, and by that means renders it unable to complete the crisis.

The more early in the fever that venæsection is performed, the better, as it is easier to prevent the bad state of the blood, than to remedy it after it is happened. If at any time during the increase of the fever,
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the heat is great, the pulse full, hard, and slower than ordinary, unless the crisis approaches, or the efforts of nature evidently tend to this, even though at some distance, it indicates bleeding; and in such circumstances the patients bear the operation well, and are ordinarily relieved, provided a proper quantity of blood is drawn: and in such situations if venæsection is neglected, or too small a quantity let, inflammations with their consequences are to be dreaded. It is proper here to observe, that too violent efforts towards a crisis, as well as pains, are in most cases relieved with certainty and safety by letting of blood.

The second and third indications are answered by using saline mixtures, nitre, spirit. minderer. vegetable acids, cooling and diluting liquors. In some cases, to the use of these may be added such medicines as promote the perspiration without raising the pulse, or increasing the fever. Dr. De Haen, a physician in Vienna, has very properly recommended oily medicines joined to opiates; nor perhaps can we find any medicine that so effectually and easily promotes perspiration, as opiates given in

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small quantities; and in this fever, after bleeding and mitigation of the symptoms, especially the heaviness of the head and sleepiness, they may be used with success: only let the physician carefully attend to their effect, as particular constitutions suffer by opiates too largely administered, or too long continued. But besides the above, let me here caution practitioners against using opiates in full doses, during the increase of continual fevers, as I have seen several, who incautiously had taken them in opposition to their physician's advice, fall a sacrifice to their own obstinacy; where, instead of sleeping, as they expected, excessive ravings continued, till the sleep of death made an end of their sufferings.

When in the beginning of the fever the stomach is oppressed, if an inclination to vomit, or actual vomiting harrasses the patient, and no symptoms of an inflammation of the stomach appear, a vomit of ipecacuanha may safely be given, and is generally followed with great relief to the sick. I have also often observed, that it prevents a diarrhœa from happening, which is sometimes dangerous, always troublesome. De Haen not only condemns this
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practice, but inveighs warmly against it, though reasoning no better supported than his will never prevail against the safe practice of the ancients, and the experience of a century, or nearly so; since the attentive Sydenham particularly recommended the practice, after he was become mature in judgment from long and extensive practice.

When the tongue is foul, a gentle laxative may be given, or clysters occasionally administered, as the condition of the patient requires.

When the symptoms indicate inflammation of the bowels in the abdomen, emollient fomentations may be applied to the belly; but in these and other inflammations, the proper method of cure peculiar to each must be followed directly, whenever they appear, as abscesses or gangrenes are often the irremediable consequences. See INFLAMMATORY FEVERS.

If at any time the fever falls too low, and the organs of the body become inactive, nature may be roused to exert herself by proper cordials, as wine, spirit, saline, aromatic, volatile spirits, or salts prepared from animal substances, Virginian snake-

root, &c. Externally, blisters and sinapisms are of great service.

When the physician is called too late, and the fever considerably advanced, he ought carefully to examine the patient; and after learning the history of the disease, he must draw the indications of cure from the state in which he finds the sick person. If a coma comes on, blisters are of great use, and relieve from those symptoms that are the consequence of stiness of the blood, even when bleeding would be unsafe from the weak state of the patient: in such circumstances cupping and scarifying have often been used.

When the crisis is indicated to happen by an hæmorrhage from the nose, emollient fomentations applied to the part may help to promote it. If it is indicated by the pores of the skin, keeping the patients warm, and ordering them to drink diluting liquors, such as weak sack-whey, vinegar-whey, mustard-whey, or various infusions taken moderately warm, will not only make the sweat break out, but keep it up while the physician sees needful. Not seldom after the crisis is complete, a
sleepi-

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sleepiness comes on, and continues for several days : during this nature seems to repose after her fatigue, while the patient gains strength and recovers. Ye empiricks, contemplate with pleasure this happy change, nor dare to disturb such useful rest, under pretence of stupors, &c. If the patients are very weak in the decline of the fever, they may be recruited with wine, cordials, and strengthening food or medicines adapted to their conditions:

When the disease lingers after a crisis, a vomit or dose of physic often restores health ; or either given as an alterative will prove useful. “ But why all the preceding directions, when Dr. James’s Powders cure the fever at once ? ” cries the favourer of specifics. In some cases it is perhaps successful, but not to be depended on, as repeated experience confirms ; and besides its uncertainty as to a cure, the operation is often so violent, as ought justly to deter those from the use of it, who can have recourse to the assistance of a rational physician.

For though this medicine may prove safe in the author’s hands, or others who have often given it, and carefully observed its

effects, yet used at random it must do much mischief; nay I appeal to the experience of those who have often seen it used, if in many cases it did not evidently hurt the patient, or hurry some out of the world. But on the supposition of its being really successful, this ought to convince us of the safe use of emetics and cathartics in the beginning of fevers, &c.

When the operation of this medicine is violent, the effect is most surest as to a cure.

Query, Would not any other medicine whose operation is similar, produce as salutary an effect?

A. This can hardly be doubted of.

C H A P. III.

Of the CONTINUAL PUTRID FEVER.

AS this fever persists without intermission, it keeps the name of Continual; and the greater severity of the symptoms, and those fatal eruptions that often appear before death, have given it the appellation of Putrid, as both have been believed to be the consequences of putrefaction; but it is
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better to consider it without paying any regard to opinions. And here I may observe, that the greater degree of heat than in any of the preceding fevers, the bad state of the bowels, which is proved by the great thirst and condition of the tongue, &c. and the eruption happening as above, point out the following indications of cure.

First, To mitigate the symptoms, and diminish the heat.

Secondly, To preserve the bowels from inflammations and gangrenes, which are often the incurable consequences of inflammations.

Thirdly, To diminish the quantity of hurtful particles, or hinder their acting by antidotes, till they can be safely carried out of the body by proper evacuations.

In most constitutions, if the pulse is full and hard, and the fever high, bleeding in the beginning is useful ; but let it not impair the strength, which is always the case when the blood is too copiously drawn. One bleeding is generally enough ; and in this fever, as the crisis is by an hæmorrhage, we must be cautious in weakening the body, lest the strength requisite to perform

the crisis be wanting, and the patient sink under the disease.

Experience has taught us, that the noxious particles are most safely and successfully drained by the primæ viæ, or stomach and guts ; so with this view, easy emetics, as ipecacuanha and its preparations, &c. may be given ; and laxatives, such as manna, rhubarb, tamarinds, cassia, senna, neutral salts, &c. In particular cases more efficacious emetics may be ordered, and pulv. cornachin. or even more powerful forms of cathartics may be prescribed.

Sometimes vomits and laxatives may be joined together, or given alternately, with a sensible relief to the sick : the proper time to be interposed between the doses, will be best determined from their effects.

In the intervals of these evacuations, may be given such medicines as resist putrefaction, are friendly to the bowels, and promote perspiration, at the same time that they allay the heat. These are spirit. minderer. saline mixtures, composed of juice of lemons and volatile salts, neutral liquors composed of mineral acids ; and volatile spirits from animal substances, vinegar, and vegetable acids in some cases are indicated,

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indicated, and ought to be preferred to the above.

In such circumstances, where the patient is wasted by want of rest, it may be useful to procure some rest ; or at least ease ; and this may be effected without any commotion, by camphire and opium joined together, and cautiously given till the effect is observed.

Some stomachics may be used. Such as are obtained from vegetables, mint, chamomile-flowers, &c. infused in boiling water, and this infusion sweetened with honey and cream, and drank like tea, is very efficacious.

As it can serve but little purpose in medicine to be perpetually changing names and expressions, I have made use of that of *putrid* in the title, and considered it in the same light, in taking down the indications of cure ; at the same time it may be acknowledged, though it is probable that certain particles of a noxious quality are in part the cause of this fever, yet these are far from having any resemblance to such particles as are emitted from putrescent bodies ; nor is there, during the course of this fever, any part of the body in a putrifying

trifling state, if we except the contents of the primæ viæ. That particles are perspired from the surface of the body, or exhaled from the lungs, is sensibly perceived by us; and it is certain, that they are sometimes very offensive, nay perhaps infectious, from some particular properties they possess, which are in common with no other effluvia. How much have sciences been hurt by ill judged and improper comparisons!

C H A P. IV.

Of the ARDENT FEVER.

BURNING heat, unquenchable thirst, dryness of the skin, and an increase of the symptoms on the unequal days, are distinguishing marks of this fever. The indications of cure will be,

First, To diminish the heat and thirst.

Secondly, To soften the dried skin, by promoting perspiration, &c.

Thirdly, To give such medicines on the equal days, as will diminish the severity of the symptoms on the unequal days, and promote the crisis in due time.

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We ought here to consider that the solutions of this fever are various ; and hence it is not easy to determine, in the first case that occurs, which shall take place : nay, as the time when the crisis will happen is uncertain, we ought in the first place to prevent that disposition in the blood which brings on inflammations, and in the next place to guard against that state of the blood which threatens excessive evacuations, as these often prove fatal.

But when this fever is epidemic, on observing its course in several patients, we shall soon be able to foresee every symptom that happens, and the time as well as manner of the crisis.

In few cases can venæsection be performed without encreasing the fever and perverting its course ; so it may be laid down as a general rule, not to bleed.

Diluting liquors of which water is the chief, is greatly desired by the sick : this drank cold, is very refreshing ; but as it may prove hurtful in many circumstances if drank cold, it is better to have it warmed a little, by adding some new-drawn milk.

Juice of lemons diluted with water and sweetened with sugar is a refreshing drink.

Whey

Whey new-drawn with some nitre dissolved in it, emulsion of almonds, cold feeds or camphorated, rob of elder-berries, oxymel, jelly of currants, whether white, red, or black, juice of many kinds of ripe fruit, are of great use in answering every indication.

Saline mixtures and neutral substances preserve the stomach and guts from inflammations, and greatly tend to render the crisis easy and complete.

If the blood is so much dissolved as to threaten violent evacuations, acid spirits from mineral substances, as spirit of nitre, of sea-salt, sulphur, or vitriol, may be given with success.

When the belly is bound, on the equal days clysters of cooling, softening medicines may be ordered, and such substances added as gently stimulate the great gut so much, as that the fœces may be discharged. To rub the extremities with a flesh-brush is useful, as it also is to foment them with warm milk and water.

Whenever we perceive the efforts of nature tending to a particular crisis, and her performing of it to be attended with difficulty, let us encourage her attempts, and administer

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nister such aids as may enable her to complete the work. If her efforts are too violent, and threaten destruction, evacuations or antispasmodics will moderate her attempts. As general directions can only be given by a writer, the reader's judgment will here direct him to many things with regard to the particular crisis which he expects.

It may be here taken notice of, that we have it sometimes in our power to change her course. Thus if a violent diarrhœa is threatened, we may prevent it by a sweat, and *vice versa*. When nature seems to stagger under the load, and her force fails her, how often is she greatly relieved by blistering!

This fever, though entirely judged by a complete crisis, yet the patients sometimes relapse; as I saw lately in a young gentleman above twenty, who got free of the fever on the seventh day by a profuse sweat. After ten days, relapsing, the fever continued with an increase of the symptoms on the unequal days till the fifth day, when a copious hæmorrhage from the nose gave an entire crisis. After ten days more, the fever returned again, and continued violent

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till the third day, when a very plentiful sweat relieved the patient from all the symptoms, and he soon recovered perfect health.

I have seen this fever continue for forty days, after which the recovery was very slow ; nor was there any sensible crisis.

In a young gentleman under this fever, a copious sweat happened on the seventh day ; the fever was thereby somewhat abated, though it continued, with an increase of the symptoms on the unequal days, till the eleventh day, when a violent pain of the belly happened, and was followed by a diarrhœa. This gave some farther relief, though the ardent heat was still sensibly felt, the tongue foul, and the pulse hectic ; abscesses were formed on the neck and back, and the opening of these were always followed with relief, till the forty-second day of the fever, that a rigor happened ; after which the heat abated, and the patient gradually recovered.

C H A P. V.

Of the HECTIC FEVER.

I Have already taken notice that this is sometimes the consequence of an ephemera. I shall farther observe, that it is the constant attendant of the decay, or phthisis pulmonalis, so destructive in Scotland. It is often caused by inward abscesses, by the absorption of putrid matter from abscesses or ulcers, by irritation occasioning frequent coughing. When the matter is lodged in the membranes of the bronchiæ, or those of the lungs, from stones in the kidneys, or bladder, in the gall bladder, or many other places; these are severally known by the symptoms proper to each. It is also occasioned by matter from the small-pox, measles, French pox, and from many other causes too numerous to be made mention of in this place: but to treat of each of these, and give the proper cure, would be deserting my plan, in which I propose only to give the general method of cure in a hectic fever.

The indications of cure are, to diminish
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the heat, to give such food as nourishes the body with the least increase of fever, to prevent the colliquation of the blood, or if it prevails to remedy it.

In the beginning of a hectic that has not been preceded by another disease, bleeding is of great use, and may be frequently repeated with remarkable relief; and though venæsection is not so certain a cure as an hæmorrhage that happens naturally, yet it often carries off the disease; nor does it hinder the effort of nature in bringing on a crisis by an hæmorrhage, as frequent experience sufficiently proves.

But after the fever has continued long, and the body is much wasted, bleeding is evidently hurtful, and hurries on approaching death.

Vomits are sometimes of great use in promoting perspiration, and disposing the organs of digestion for doing their office. Cooling medicines given frequently in small quantities are of great use; and here I must again recommend neutral substances, as saline mixtures, spirit. minderer. nitre, emulsions of almonds; juices of various vegetables, as the lactescentia amara, and rob of elder berries, honey, oxymel, vinegar, oil

oil of almonds, or olives, properly ordered, will prove very efficacious.

Diet ought to be of such food as is of easy digestion, and taken little at a time, as the fever is always increased after a full meal.

When the body is wasted, the digestion bad, of the easiest digestion and most nourishing, and what at the same time diminishes the fever, is women's milk; best when sucked by the patient. Next to this is asses milk, then mares, and after these goat or cow whey; for the milk of these last mentioned animals is apt to curdle on the stomach: but this may be prevented by using absorbents, or infusions of mint. The effect of the milk of the several animals is greatest in spring, when they are fed with grafs.

The patients, during the use of these milks, must abstain from medicines altogether, except such as are above mentioned.

But when the stomach is strong enough to digest them, broths, green tea beef, panada, salop, jellies of hartshorn, &c. &c. may be taken.

In colliquation, absorbents, rad. sympath. masor. astringents, Peruvian bark,

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conserve of roses, acids joined to alcohols, are of real service. Riding, sailing, and exercise of many kinds, are also of remarkable efficacy. Agreeable amusements, cold bathing, rubbing of the extremities, all of these may be ordered in particular circumstances, and greatly contribute to recovery. But if considerable obstructions or inflammations of any of the bowels prevail, or when abscesses are formed, we must have recourse to deobstruent, antiphlogistic, diluent, and antiseptic medicines : we ought attentively to watch over the different attempts of nature, and assist her operations, whether she relieves herself by sweat, urine, stool, spitting, or forming external abscesses, which often prove excellent drains for carrying off the morbid matter. In imitation of these, we may put in setons or apply issues, &c. and experience confirms in many cases their usefulness.

In several hecticcs which were the consequences of diseases of the breast or continual fevers, I have often given the Anti-hecticum Poterii ; and though I could observe little sensible change from any operation of the medicine, yet the patients gradually recovered till they acquired perfect

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fect health : but it was not always attended with the same success ; and unhappily for human practitioners, too many cases occur, in which it is out of the power of art to give any thing else but a temporary relief of some fatal symptoms.

I now leave this subject, in order to consider some alarming symptoms in fevers, which it is not seldom in the power of art to remedy.

C H A P. VI.

Of Anxiety.

BESIDES the general method of cure peculiar to every species of fever already mentioned, there are some symptoms that supervene, attended with so great danger as to deserve the physician's particular attention. The first I shall make mention of is anxiety or oppression at heart, which is commonly the forerunner of death in every acute fever.

When this is attended with difficult breathing, a weak and wavering pulse, and coldness of the extremities, unless immediate assistance be given, the sick person

soon after expires: and as the physician is frequently called in such an unhappy situation of the patient, let him not hesitate, but order directly sinapisms to be laid to the soles of the feet, frictions of the extremities, or blisters to be applied to the legs and arms, or ancles and wrists.

He may at the same time prescribe to be taken inwardly, cordials of volatile salts and spirits, to be swallowed down in proper vehicles, as they are likely to prove immediately serviceable: wine, sack-whey, &c. may be used after the patient is somewhat recovered.

In such cases, when the physician has attended the patient from the beginning of the fever, he ought to consider attentively whether there is reason to expect any cutaneous eruption, or if the anxiety indicates an hæmorrhage or flow of urine about to happen. See Chap. XIX. of the preceding Treatise. In any of the above situations, the particular circumstances of the patient will direct to a proper method of cure, in assisting the operations of nature. Where the causes cannot be found out, and the danger is imminent, according to Celsus, *præstat anceps quam nullum experire remedium.*

dium. I would here recommend it as a maxim, never to use a remedy at a venture which may do harm.

1. As the anxiety is often caused by some load at stomach, if the pulse is not small and weak, nor any vomiting follows on swallowing of liquids, we may conclude that the stomach is free from inflammation, and give a vomit of ipecacuanha in powder, its tincture, or infusion: the patient may use during the operation of the vomit, an infusion of chamomile flowers, carduus, or mint. If a stool does not follow soon after the vomiting is over, an easy laxative potion may be given by spoonfuls at proper intervals, or one spoonful every hour till the patient have a stool. By this method we shall free the primæ viæ from any offending matter, and often considerably relieve the patient.

2. But if the anxiety is caused by weakness, as when any violent evacuation has preceded, we must order the use of nourishing food proportioned to the strength of the patient, wine, and cordials.

3. When the nerves are affected, and spasms occasion the complaint, much relief may be obtained from using judiciously

ously musk, castor, asafœtida, camphire, cinnabar, volatile salts, spirits, or opiates.

4. If the fizy blood circulating with difficulty causes the oppression, and the strength of the patient can bear it, bleeding, with cooling, diluting medicines are proper. If the patient is weak, cupping with scarifying may be used; blisters applied are efficacious remedies in both cases.

When the anxiety is occasioned by the air of the room being too hot, admitting cold air gives immediate relief.

C H A P. VII.

Of Loathing and Vomiting.

WHEN these symptoms are accompanied with an oppressive weight at stomach, an emetic, by discharging its contents, gives sudden relief. The bitter taste which the patient complains of in vomiting, and the yellow colour of the bile, easily observed by the keeper, shews the cause of the complaint, and gives the following indications of cure; to correct and expel the gall from the stomach. Diluents, saline mixtures, and oxymel answer the first,

first, emetics the last : oxymel of squills at the same time answers both indications. The operation of the vomit being over, an opiate may be given to quiet any disturbances which the vomit has occasioned : then acids joined to such medicines as strengthen the stomach, and are but little astringent, will have an excellent effect. When the stomach is oppressed with viscid matter, frequent vomits will discharge the same, and they are always followed with considerable ease to the patient. If the viscosity is great, saponaceous medicines, alkaline salts, and aromatics, may be interposed ; but when the vomiting is violent, without either bile or viscosity causing it, saline mixtures of juice of lemons and volatile salts, or chamomile tea is of use. If inflammation of the stomach is the cause, we must abstain from vomits, and follow the method directed for curing inflammations of the stomach. See the treatise on INFLAMMATORY FEVERS.

Infusions of snake-root, wild valerian, or common mint, as also several of the medicines Chap. VI. giving relief, have occasioned a belief that the complaint may be nervous. When opiates are tried, let it be

with caution ; for though they are often useful, yet in some cases they may prove hurtful.

C H A P. VIII.

Of Weakness, Raving, &c.

ON giving a vomit, weakness is often removed ; but let the cause be carefully inquired into ; and this found out, it is easy to order proper medicines for removing it. But when the strength or *vis vitæ* is exhausted, this is impossible. In raving, when the tongue is foul, a bitter taste in the mouth, loathing, vomiting, or anxiety, an emetic frequently relieves the patient.

When the pulse and other symptoms indicate an inflammation of the brain, bleeding in the jugulars, arms, or ancles, is the best remedy. Dr. Mead recommends leeches set on the temples, or lamb lungs applied warm to the head : the first is often followed by a very good effect.

Of dosing, camphire given in emulsion, tea for ordinary drink. Externally, camphire applied to the temples, or crown of the head ; blisters laid on the head, back,
or

CONTINUAL FEVERS. 105

or extremities ; sinapisms applied to the soles of the feet ; or, according to Hoffman, spirits mixt with aromatic oils, rubbed on the soles, and feet.

In convulsions, musk is preferable to every other medicine, yet many other nervous medicines may be used with success, particularly those mentioned Chap. VI. 3. In looseness, vomits or emetics given in small quantities, and often repeated ; for though in this last manner they only act as alteratives, yet in both cases they are very efficacious. White decoction, nitre, opiates, and even astringents may in some circumstances remove the complaint. But it is proper here to caution the reader with regard to astringents, that he observe carefully their effects, as the too liberal use of them is apt to bring on a stupidity that is often not easily to be removed ; nay in some cases it has been found impossible to remove it, and it continued for life. Rhubarb and absorbents frequently carry off this symptom. Clysters of starch, astringents, strengthening medicines, and opiates, seldom fail in answering our expectations.

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Here the reader will perhaps be apt to say to himself, “ Are these all that this author has to communicate ? Does he know of no specifics that can remove the fever, or carry off the dangerous symptoms whenever they appear, without putting us to the trouble of inquiring into causes, or attending to effects ? ”

After twenty years experience, he honestly declares, that he knows of no method or medicines that can give relief in every case which occurs. A physician can alone expect success from the most efficacious medicines, when they are opportunely prescribed : if they are ordered at random, the more powerful they are in their operations, the greater mischief must they do.

Genius is the gift of heaven, rarely bestowed ; but wherever it is found, it will discover itself by a sagacious judgment of the disease, and timely application of remedies. A practitioner blest with genius never prescribes till he understands the disease, and foresees what may be effected by the method which he follows, and the medicines which he orders. A thousand little occurrences will administer hints, which are able to direct him both in judging of diseases,
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and in practice ; but these cannot be taken notice of by an author, or communicated by a writer.

The means of relief are often more simple than boasted specifics ; nor are they for this less effectual in curing. An useless parade of medicines may amuse the ignorant, but must raise contempt in the intelligent. The simple practice of the ancients must be justly preferred to the numerous prescriptions of many moderns, in the judgment of the able and expert practitioner ; and happy would it be for miserable mankind, if the true Hippocratic practice was restored among the surgeon-apothecaries of the present age. What unavailing sufferings would be saved ! Wounds, vomitings, scourings, are often the portion of poor sufferers, who would certainly recover without a single medicine. How many are unnecessarily surfeited with drugs, and flayed alive with blisters to no purpose ; while others are stupified with opiates, or as if roasted with sudorifics ! How endless would it prove to paint the various scenes of distress which too many feel ! Pliny formerly predicted that medicine would soon become the vilest of arts ; and were he now
alive,

alive, he would swear that the time is accomplished, and the prediction is fulfilled. Nay so insolent are these ignorants, that I have known a surgeon-apothecary ask a physician, what made him deviate from the ordinary round of practice in treating a patient under a fever, at the same time this babbler had not the smallest conception of what kind the fever was. Should I here present my reader with a genuine and true catalogue of the blunders which I have seen these gentlemen make in judging of diseases, he would stand astonished; a pleurisy taken for a nervous fever, and treated accordingly with a fatal effect: a woman under a peripneumony, which was believed to be a hysteric fit; and being treated with antihysteric medicines, was with difficulty saved, by the timely calling of a physician, who discovered the mistake, and changed the method of cure. But I cease to pursue what would prove endless; and too many similar instances but too often occur to every physician of considerable practice.

A
T R E A T I S E
O N
INTERMITTING FEVERS.

T H E

P R E F A C E.

TH E following Treatise on Intermittents was finished several years ago, on a plan which nearly resembled the preceding Treatise on Continual Fevers: a few additions have since been made, with some alterations.

That fevers and other diseases have been the same in all ages, the author was convinced of, by perusing the works of the physicians of different ages, and comparing them together. From these he extracted what seemed to him the best observations on diseases, and the practice of medicine. The number of these were gradually increased, as new books were published, or opportunities of comparing them with particular cases occurred. Whatever was found to be new or useful in books was added to the collection, and put down in the words of the author annexed, and his name

as a proof of the authority : and he marked as the first observer any thing useful, whenever he believed that it had escaped being taken notice of by others. But in the course of his reading he frequently discovered, that others had made the same observation long before he was born ; on which he added their testimonies, happy in finding the truth confirmed. On any difficulty, the author had recourse to these ; and by this means was enabled to judge of the value of others observations, as well as of his own. He did not pretend to put them in order till he believed himself master of the subject, from the numerous appeals which had been made to nature, and the discussions he obtained had given him entire satisfaction, both as to the truth and importance of the several articles. When he had made considerable advances in composing the treatises, he put them into the hands of some of his brethren, who were pleased to commend them to the writer, but spoke of them to others as mere collections from books, in which there was no merit ; for any drudge could collect. Had they really been a collection from a common-place book, they would probably

bly have been much more bulky and less instructive. There are but very few articles inserted which are taken from any other than the book of nature, where the author has often perused them with pleasure and attention ; and he has frequently had the testimony of his senses in fevers, of the truths which both ancients and moderns have communicated. With what propriety of language, then, can they be said to be taken from others, when they are the author's property, in the same manner that they belonged to any of his predecessors ? That is, he has observed them, and communicates them from a thorough conviction of their truth, in the same manner as the physicians of former ages did. Is it any objection to the accounts of Greece, and other countries in the neighbourhood, which have been given by late travellers, that the same had formerly been described by the accurate and judicious Homer ? Dr. Tho. Sydenham is allowed to have been an original author, who entertains us with what he had observed in diseases ; but take from his works whatever is to be found in those of his predecessors, and you will reduce them to little ; and if you will be pleased

to add the useful observations which he has neglected, or perhaps was ignorant of, you will much enlarge his works, and greatly add to their value.

The author of this performance has treated the works of former physicians in the same manner that Virgil did those of Ennius, selecting what appeared to him of the greatest value. If the reader should alledge that he has been too nice in his choice, and rejected too many articles, this loss will be easily made up by perusing the works of any of the systematic writers, or those of the fabricators of theories, where he will find materials to satiate the cravings of any appetite. Medicine may be compared to Geography. In this, the most useful part is the general divisions, the chief cities, and high-ways. If these are accurate, we commend the performance, though no notice be taken of the small cities, villages, or cross-roads. An exact scrutiny of diseases, in order to ascertain their essential symptoms, and paint them to the reader in a natural light, so as to enable him to judge with certainty, to reason properly, and to practise safely and successfully, was what the author believed might prove acceptable

to several readers, even in these times of dissipation, when the rage of theory has infected almost all the medical tribe, to the neglect of pursuing real and useful knowledge; and I doubt many of those gentlemen who have laboured in this part, have been just as well employed as children are on hobby-horses: they are pleased with the exercise, think that all the world admire their riding, though they never advance a single step. Yet happily for the readers of books, there are just exceptions to the above; and some have spent their time to good purpose, while by solid reasoning they have much improved the art of healing. But I intend, God willing, to do justice to these in the History of Medicine, as the best theories are the productions of the writers of the present century.

There is an admirable simplicity to be observed in every thing in nature, which is apparent even in a superficial view; but when we study her attentively, we discover some plain and obvious truths, which may direct us in pursuing the way of her works; and seldom shall we meet with any perplexing labyrinths, for these are the productions of blind reasonings, and not to

be found in the works of nature. But unluckily for us writers, we are more deeply versed in prating than observing, and find it an easier matter to talk on subjects than understand them. Is not the modern mode of education the cause of this? A professor solely intent on establishing his doctrine, views it so partially, and reviews it so often, till like Theffalus, physician of the emperor Nero at Rome, he boasts that he has outdone all his predecessors and contemporaries. If he possesses a plausible manner of teaching, his students soon become convinced of his pretensions to superiority; they confide in him, imbibe his doctrine, and so proceed to practice, fully assured of great success, from the ingenious reasonings of their master; but too soon find that they are ignorant in the art, though versant in conceits. The author would fain hope that the following Treatise, notwithstanding its brevity, will prove acceptable to readers of taste from the merit of the materials which it contains. Should it be alleged that there is nothing new, it must be owned that there are at least many things true and useful.

A

T R E A T I S E

O N

INTERMITTING FEVERS.

I Come now to the second class of fevers, of which I propose to treat in nearly the same manner as I have done in Continual Fevers.

The general title of Intermittents serves sufficiently to distinguish them from other fevers. If we add the duration of their several paroxysms together, we shall find the amount to come very near the time of continual fevers. Agues, when pure, are easily distinguished from one another, and their course is as uniform and regular as that of continual fevers.

They have properly obtained the name of Endemics, as they frequently seize the inhabitants of particular countries: the island of Cadfant in the Low Countries, and the fens of Essex in England, are evident proofs of this.

Nor does countries alone occasion their happening, but particular seasons and a certain temperature of the air render them epidemic. Some diseases give rise to them, and several indispositions of body concurring with a moist and cold air, never fail to produce them; whereas, on the contrary, in some particular places, as in dry and warm situations, regular intermittents have seldom been observed. This I have had confirmed to me by a physician who has lived here, and been in extensive practice almost fifty years. Yet even here many efforts of nature towards forming of agues may be observed, in which the sagacious physician can discover the type of some particular intermittent, to which if he suits his method of cure, success will attend his practice, as I have learned from several experiences.

But as it is no part of my plan to inquire into or enumerate causes, so I shall confine
my

myself to what is useful in knowing of the disease, and foreseeing of the event. Brevity I shall study. And here let me recommend as excellent authors on this subject, Ramazzini, Lancisi, Baglivi, Van Swieten, Hoffman, Verlhoff, Mead and Sydenham. Many others might be added, ancients as well as moderns ; and even Hippocrates has many valuable observations on this subject.

Happily for the inhabitants of Scotland, agues are not so frequent as in many other countries. The free and generally dry air in many parts of this country, the temperance and active life of the inhabitants, are perhaps in part the cause of this : yet I have seen them epidemic in several cold wet seasons, &c.

C H A P. I.

Of INTERMITTENTS in general.

THEY are divided very properly by authors into Spring fevers, and Autumnal.

1. Those are called spring that begin from February to August.

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2. Autumnal fevers are such as occur from August to February.

3. They are denominated from the time between two attacks, quotidian, tertian, quartan. If only half the time intervene, they are called femiquotidian, semitertian, semiquartan.

4. In the beginning of autumn, by lengthening out and doubling their paroxysms, they have often the appearance of continual fevers.

5. When they are epidemic, they frequently appear under the mask of a continual fever.

6. Spring intermittents are seldom of long continuance, and always salutary. When the patients begin to recover, a raving happens, that gradually leaves them as they gain strength. SYDEN.

The urine and sediment in intermittents is red like brick-dust; and this is a sure means of distinguishing them from other fevers. BAGLIV.

As to the paroxysms, the more regular they are according to the fever, and the freer the patient is from feverishness during the intervals, the less is the danger. The more that agues vary from their type, and the

the nearer they approach to continual fevers, the greater is the danger. We must distinguish in agues, first, the cold fit; secondly, the hot fit, or state; thirdly, the decline, or time of the sweat; and fourthly, the interval, or time free from the fever.

I shall describe each of these in general, before I come to particular fevers.

They begin with yawning, stretching, weariness, weakness, cold, shuddering, stiffness, trembling, paleness, difficult breathing, oppression about the heart, loathing, vomiting, a quick, weak, small pulse, and great thirst.

The severity and number of the above-mentioned symptoms indicate the danger of the fever, the degree of the ensuing heat, and other symptoms. This is the time most to be feared in agues, as in it they sometimes prove fatal: the urine, during the cold fit, is generally watery, and crude.

The state that follows, begins with heat, redness of the skin, a strong, great, and full breathing; the oppression at heart diminishes gradually, the pulse becomes greater and stronger, the thirst is intense, with violent pains of the head and joints; the urine made during the state is commonly red.

red. This may be compared to the state of continual fevers.

A sweat comes out that relieves the symptoms ; the urine is thick, and deposits a sediment like brick-dust ; sleep follows a freedom from the fever ; and after the patient awakes, there only remains a lassitude and weakness during the interval.

These in general ; but as there are peculiarities in each fever, I shall describe particularly the appearances in their natural order, that the reader may be able to judge in every kind, and especially on account of the practice, which must differ widely in the cure, if we expect success.

C H A P. II.

Of the QUOTIDIAN FEVER.

ITS first attack is early in the morning ; then a coldness begins in the extremities, as the toes, fingers, and top of the nose. If the patient vomits, it is generally a viscid stuff. A small heat begins, and gradually increases till it becomes uneasy ; yet it seems unequal, and a coldness intervenes. A great sleepiness happens, the first

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first days, without thirst or sweat ; nor does the fever intermit. In the first attack some faint, the pulse is irregular, and more unequal than in other fevers ; it is slow, small, and weak, for the most part.

The stomach is constantly pained, and the belly loose.

The urine in the beginning is whitish and thin, or thick and disturbed.

The body is dull and heavy.

The paroxysms generally end in eighteen hours with a little sweat, and the fever in sixty-four days.

It is a good sign, when the patient vomits a viscid matter in the fit ; a plentiful sweat happens in the decline, and the fever intermits intirely.

When it is irregular, there is danger of its changing into a continual fever ; sometimes a hectic supervenes, with a gradual wasting of the body.

C H A P. III.

Of the TERTIAN FEVER.

IT begins about the time of breakfast or dinner. At first, the head is pained, there is a weariness of the joints, a pain of the loins that ascends to the pit of the stomach, a painful sense of stretching under the cartilages of the ribs, a boundness of the belly, a coldness of the extremities, as also of the ears and nose; a stretching, yawning, and shuddering, that sometimes occasions a trembling of the limbs; the pulse is small, contracted, and weak, and in many cases the sick are thirsty; then succeeds a loathing, with a reaching or vomiting of viscid bilious matter, or greenish coloured; there is a troublesome cough and tough spitting: these are the most remarkable symptoms of the cold fit.

Next succeeds a general heat over the whole body, or there is a dry burning heat about the vitals, attended with anxiety; the face, that during the cold fit was collapsed and pale, now swells and becomes red; the skin, then contracted and stiff, is

now

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now red, and relaxed; the veins, then scarcely perceivable, now appear full; the pulse becomes more full, greater, and sensibly quicker; a restlessness, difficulty of breathing, and raving, with half-shut eyes, ensues.

After some time the sweat breaks out, the symptoms gradually disappear, the heat becomes milder, the skin soft, and relaxed.

The urine is high-coloured, and without sediment. The sweat continues and puts an end to the fit; the duration of the three preceding states, which I shall call the paroxysm, is from ten to twenty hours.

The next day the body is weary, and easily shudders; the pulse, that during the fever was quick and strong, is now slow and weak, with a wave-like motion; the urine is now thicker when made, and on standing deposits a sediment, or shows cloudy.

If on the first free day the urine deposits a good sediment, the fever does not exceed three paroxysms.

When the sweat is copious in the state, having been preceded by a vomiting of bile, if the urine is ruddy or yellowish, of a middling

middling consistence, with a cloud or sediment, then the fever does not exceed the fourth paroxysm. But when the urine is very red, and not cloudy, it will reach the seventh paroxysm. The crisis happens by ulcers or pustules breaking out on the lips and nose, as also by a looseness. BELLIN.

Forestus has declared, that during forty years practice, he never saw any person die of this disease, unless when it changed into a continual fever.

Vander Muy has observed, that it never changed into a pestilential fever.

Van Swieten observed a tertian happen in the spring, during the time of a salivation, that ceased after the fourth paroxysm.

The following symptoms forebode danger, according to Torti.

1. When the looseness is attended with pains of the belly, or vomiting, this threatens either a continual fever, or some inflammation.

2. When what passes by stool is like washings of flesh, it is generally a mortal symptom; though I have seen fat people bear this.

It is a certain sign of death, when black concreted blood to any quantity passes by stool; this sometimes happens to pounds.

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3. Is the heart-burn, whether it tortures the patient in the first attack, or is continued to the state (the longer the worse): in whatever paroxysm this appears, it is much to be feared, lest it should prove fatal in one paroxysm or two. When this happens, the disease generally carries off the patient before, or in the fifth attack.

4. When the patient sweats continually with a profuse cold sweat, thus constantly chill and sweating, he is melted like wax, wasted, and dies. Sometimes, about the decline of the paroxysm, a small cold sweat breaks out, and the patient is cold as marble.

5. When a fainting succeeds the heart-burn, or happens by itself; when a cold chillness comes on in the beginning of the attack, it is constantly to be observed, that the pulse during the paroxysm, and even after it is over, is greatly depressed, more or less, in proportion to the greater or less danger of the symptoms above recited.

TORTI.

The tertian is not without danger to the old and weak.

When it is epidemic in autumn, it rages for two or three months; sometimes till the following spring. SYDEN.

C H A P. IV.

Of the QUARTAN FEVER.

IT commonly begins in the afternoon with a great weariness of body, a stretching, a dull pain of the head, back, loins, and large bones of the legs; the feet and hands grow cold, the body turns of a pale colour, the face and nails not long after become livid, a shivering or rigor comes on, the tongue and lips tremble, the breathing is difficult, the vitals feel as if corded; then follows a tossing and restlessness, with a contracted and hard pulse, which is sometimes unequal.

The above symptoms endure for hours; the belly is bound, though this is accompanied with a constant inclination of going to stool, and making of water.

In old people chiefly, there is a reaching, a vomiting, or looseness.

The head in some patients is confused and pained, and a raving ensues.

Then gradually approaches a heat, with troublesome dryness of the skin; the pulse, now equal, becomes quicker; the pain of
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the head continues, with giddiness, and the skin at last turns moist. The above, which is the state, endures from four to six hours. When this is over by the sweat breaking out and continuing, the heat and other symptoms gradually abate, till they entirely disappear.

In the days free from the fever, the pain remains in the joints and feet, the head feels heavy, and the patient complains of a loathing; the urine, that was thin in the paroxysm, is now thick, and deposits a sediment.

If a scab strikes out over the body, it is a good sign; for the fever soon after goes off, and the scab without any remedy quits the patient. BAGLIV.

Quartans seldom kill the patient, but sometimes change into other diseases.

Hoffman has observed, that a crisis sometimes happens by the hæmorrhoidal flux; he has known it end in the small-pox: That in women with child it seldom quits them till after their labour; and he has seen the child after birth affected with the fever: That it is a security against other diseases; but when it is of long con-

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tinuance, it frequently proves fatal : That patients easily relapse.

Celsus has observed, that the quartan kills nobody ; but if it changes into a quotidian, the patient is in danger ; though this never happened, unless through the fault of the sick, or of the doctor.

A great loathing of food is the worst of symptoms, as it indicates the putrid state of some bowel. HOFFMAN.

Hippocrates has observed, that winter quartans often changed into acute fevers ; that autumnal were of long continuance, and summer of short.

Autumnal quartans are dangerous, obstinate, and often kill the aged after a few paroxysms ; and if the patients are bordering on old age, scarce any recover till, after having suffered a whole year, the time returns in which they were seized. SYDEN.

Van Swieten has observed, autumnal agues appear about the end of September, and a jaundice supervened.

I have often observed in quartans a schirrhous liver, tense and tumid abdomen, in old people, which generally ended in a dropsey ; and but few recover'd from this last disease. A deep sleep or profound le-

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thargy in the fit is sometimes a mortal symptom in every kind of intermittent. In some cases it appears without any preface, and puts an end to the life of the patient; yet if the physician should observe on the day or days free from the fever, a dryness and roughness of the tongue, an unusual tossing and restlessness, these afford reason to dread its appearance in the fit that follows; and let this serve as a caution against being secure, when deadly danger is impending.

C H A P. V.

Of the CURE of INTERMITTENTS in general.

HERE it may be observed, that in curing agues nothing ought to be attempted in the first cold fit, that we may have an opportunity of judging what kind of fever is to follow, and of the degree of its severity; for in these, as well as in acute fevers, much may be learned from the first paroxysm, as to the future course of the fever.

But when a profound lethargy happens,

as this threatens immediate death, we must bleed directly, and to the precise quantity which relieves the patient.

When the sick vomit, this may be promoted by the drinking of warm water after each fit of vomiting, till the stomach be relieved.

But if there is only a loathing with an ineffectual attempt to vomit, an infusion of chamomile flowers in boiling water, and drank warm, will assist nature, which by bringing on the vomiting gives great relief to the patient. The quantity of mucus evacuated, together with its viscosity, will afford an opportunity of judging both of the state of the stomach and intestines, and of the cause of the disease.

During the state of this fever, the danger is not so great; and then we may order diluting liquors to be drank warm, so as to mitigate the thirst, and dispose the sweat for passing more easily by the pores of the skin in the decline, during which the above medicines may be continued in a suitable manner, and such additions made as may serve to promote the sweat, and are known to be antidotes to the particular fever under which the patient is.

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The interval is the proper time for administering the most efficacious medicines, whose operations are designed to render the accession easier, or prevent returns of the paroxysms. Where agues are endemic, it is difficult to cure them; in places where they seldom happen, it is much easier.

I shall conclude with observing, that agues happening in spring and summer, are of short continuance; and in these nature commonly effects a cure without any assistance from art. The warmth of the atmosphere daily increasing, the insensible perspiration is probably the cause of this. In quartans, attentive practitioners are apt to imagine, that as they have generally been successful in curing intermittents, therefore their method of treating them is excellent; and the medicines which they prescribe are real specifics. Consider, gentlemen, I pray you, that experience is deceitful, and that what you arrogate to yourselves is frequently the work of nature. True it is, that the Peruvian bark is, perhaps, better entitled to be called a specific than any other medicine; but to assert that it cures in all cases, is to contradict experience,

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rience, and to impose as truth an impossibility on the credulity of mankind.

It is very evident that noted specifics and boasted nostrums have acquired no small share of their reputation from cases in which danger was only apprehended; as witness the several remedies for the bite of a mad dog, &c. &c.

I now proceed to give such general practical directions in each fever, as seem necessary to prevent danger, &c. And in this I shall follow the same order that I have done in describing the several intermittents. I begin with the quotidian.

C H A P. VI.

Of the QUOTIDIAN FEVER.

THIS fever generally begins in the morning, sometimes in the forenoon, and may be known by the symptoms which have been made mention of in Chap. II. even before it forms regularly, or intermits.

The viscid matter which is discharged from the stomach by vomiting, the loose belly, and the constant pain of the stomach, discover the seat of the disease, and
afford

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afford the following indications of cure : To correct and evacuate the offending matter from the stomach and intestines. And as this matter is produced from the glands which are placed in the cavities of the above-named bowels, its quantity far exceeding what is found in a state of health, is a proof of the weakened and relaxed state of both. Hence the second indication will be, to strengthen the bowels, particularly the primæ viæ. In order to effect this, we ought to promote the perspiration ; for this being increased, supplies the place of the secretions by the glands of the stomach and guts, and often prevents too copious a discharge from them, or the lodging of morbid matter in the first passages ; nay, frequent experience confirms that this is the method of giving relief which nature generally makes use of.

The third indication of cure is, to mitigate or remove the pain.

Of the CURE.

THE circumstances of the patient can alone determine whether or not venæsection is proper. Is the sleep profound ; does

the patient faint; and is the pain of the stomach violent; bleeding to a proper quantity may prevent danger, and mitigate these threatening symptoms.

But if the sleep is easy, no fainting, and little pain of the stomach, it is better not to bleed, as by that we may needlessly weaken the patient. In order to answer the first indication of cure, we may begin to give early in the decline of the paroxysm neutral salts and aromatics, to correct the viscidities, and dispose the matter for being more easily evacuated.

In the interval a vomit of ipecacuanha, or any other emetic may be ordered, so as that its operation may be over before the return of the fever. During the operation of the vomit, the patient ought to drink occasionally some bitter infusion, such as that of chamomile-flowers, carduus, centaury tops, wormwood, or any other bitter.

But as the time free from the fever is of no long continuance, to the emetic may be joined or given, soon after the vomiting is over, some purgative, that the intestines may likewise be emptied.

From experience I can recommend
pulv.

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pulv. Cornachin. as both safe and efficacious; but here it must be attended to, that as there is both a natural vomiting and looseness, a small dose ought to be given at first, till its effect is found; for should too great an evacuation happen, we should hurt the patient by weakening him.

It may be of use to take notice, that the operation of both the vomit and purgative is generally over in five or six hours; and it is proper that the purging be ended before the return of the paroxysm. As this fever is sometimes of long continuance, and apt to be changed into a hectic or slow fever, that often prove fatal, we ought to lose no time, but give the patient in the decline of the paroxysm, and during the interval, such medicines as are most effectual to strengthen the body, and remove the fever.

To answer the second indication of cure, bitters, aromatics, and neutral salts are proper. I shall only make mention of a few of each, whose virtues I have often experienced. Bitters are, chamomile-flowers, tops of lesser centaury, gentian root, fumitory, water germander, &c. Aromatics are, white pimpernel-root, zedoary, calamus

mus aromaticus, white cinnamon, ginger, orange-peel, common mint, pepper-mint, &c. The first strengthen the bowels, the second keep up perspiration; and the efficacy of both is greatly increased by neutral salts. Those I recommend are, crude sal ammoniac, vitriolate tartar, nitre, &c. The above medicines properly used during the sweat, and when there is a freedom from the fever, will dispose the body for being entirely relieved.

Vomits, or purgatives, may be interposed as often as the circumstances of the patient indicate, and his strength can bear.

Pulv. Cornachin. is in this fever an efficacious purgative; yet in some cases aloetics are to be preferred; for besides clearing the primæ viæ of their noxious contents, they strengthen them, as well as the whole body, by promoting the circulation, &c. Elixirs of these with bitters, rhubarb joined to bitters, as in the R rh. amar. of the Edinburgh Dispensatory, judiciously prescribed, seldom fail in answering our expectations: aloes and sweet mercury in some cases deserve to be preferred to the abovementioned cathartics.

The bowels being freed from viscosity
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by the medicines above recommended, the fever mitigated, and the organs of the body rendered more capable of acting uniformly, Cascarilla bark, gentian, iron, and several of its preparations, stomachics, exercise, and a proper regimen, will not only restore health in a short time, but also strength.

To answer the third indication, and mitigate the pain of the stomach, fomentations of aromatics, such as rosemary, lavender, savory, mints, &c. may be applied to the pit of the stomach any time; and when the cold fit is over, they promote the sweat at the same time that they ease the pain. If these cannot be conveniently had, spirits mixed with aromatic oils, may be rubbed on the part pained: oil of mint is justly intitled to claim the preference, from its well known effects: opiates in some cases are both safe and efficacious.

COMMENTARY.

THE success of the above recommended medicines I have often experienced, when the patients had laboured for some time under the fever before I was consulted; but when early called, I have several times
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prescribed the Peruvian bark directly, and seen the use of it attended with remarkable success.

I remember a gentleman about thirty years of age was seized with a quotidian sixteen years ago. The symptoms were severe, and the pain of the stomach so violent, that for relief he had applied a smoothing-iron so hot to the pit of his stomach, that it had raised a great many pimples full of yellow matter. I saw him in the decline of the second paroxysm ; he told me something must be done immediately ; for if a return was not prevented, he certainly should die in the next fit. As there was about ten hours till the time of the attack, and one hour was lost before I procured the medicine, I then made him swallow every hour one drachm of Peruvian bark powdered. In this manner in eight hours he had taken one ounce. As the time of the fit approached, I waited patiently to observe its degree ; but happily no fit appeared. He persisted in the use of the bark for some days, though in a less quantity, and continued quite well for many years, without any remains or return of the fever. In others, I have seen the bark

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as successful, though in much smaller quantities. I have often cured this fever by crude sal ammoniac without any other medicine. I could here insert many cures performed by bitters and aromatics; but brevity I study.—I have often seen this fever removed in the beginning, by venæsection and one vomit.

C H A P. VII.

Of the TERTIAN FEVER.

THE symptoms in this fever are more severe than those of the quotidian, though the danger is generally less. This fever seems to act particularly on the stomach, the liver, and lungs, during the cold fit; though every part of the body is affected at the same time. That this is the case, the vomiting bilious viscid matter, the cough, and spitting up of what is tough and viscid, render more than probable. As giving the reasons of some of the most obvious phænomena, may enable the reader to form a judgment, I shall attempt to illustrate them in the plainest manner, hoping

ing the reader will pardon me for the deviation from my plan.

We may observe, that the cold acts most sensibly on the extremities : there the fibres become rigid, and the vessels are contracted ; the *vis vitæ* seems to be suspended, and little blood circulates through these parts. The resistance that the circulating blood meets with when it approaches the extremities, makes it regurgitate towards the heart and its contiguous parts ; hence the pains of the loins, stomach, and the tension felt in the hypochondres : the diminished circulation causes a lentor or viscosity of the blood : the blood being propelled with great force through the lungs, stomach, and liver, separates the mucus by the glands of the lungs and stomach, and urges on the bile by the increased circulation in the liver.

When the first is great, it gives reason to suspect that an inflammation of some of the bowels has happened.

From the above reasoning, the first indication of cure will be, to remove the rigidity by restoring the vital force to the extremities, and rendering the circulation free and easy over the whole body. This must

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must be effected, if the cold fit has made some progress; but in the interval the indication will be, to prevent the rigidity, preserve the vital force in the extremities, and consequently maintain the circulation.

When this can be effected, it prevents the viscidities of the blood, and all the consequences which appear during the state.

I come now to consider the efforts of nature in the hot fit. Here the vital force exerts itself every where over the whole body: its action at first raises a great heat, most intense near the vitals, where the circulation is greatest; then gradually extends its influence till it becomes universal. By means of this the lentor is dissolved, the blood regains its former route, and circulates through the extremities with ease; fills the veins, moistens the skin, opens its pores, by which the thinner part passes at first in small quantities, then more copiously; but before the sweat comes out, the lungs suffer by infarction, the brain is compressed by the too great quantity of blood urged thither, as the resistance is less than in the other parts of the body: here likewise the contracting power of the vessels is small; and this probably is the reason of the lethargy and raving.

The phyſician is ſeldom called till after the patient has had one paroxyſm, from the ſeverity of which he may judge of the future courſe and danger of the fever ; and let him take the indications of cure from this, and the particular circumſtances of the patient. Was the patient in the beginning of the paroxyſm oppreſſed with a profound ſleep, and afterwards ſeized with great raving ; did he in the ſtate vomit much viſcid bilious ſtuff ; was the cough then and in the decline ſevere, and followed by ſpitting up of thick tough mucus ; the danger of the enſuing fit may be prevented by letting of blood, if the patient is young, vigorous, and plethoric : but if none of theſe, a vomit given, provided the operation can be over before the return of the fever, will empty the ſtomach, carry off the offending bile, and promote perſpiration. It will alſo render the expectoration eaſier, and enable the parts that ſuffered in the preceding paroxyſm to bear better the efforts of nature, in the enſuing fit.

During the operation of the vomit, the patient may drink ſome bitter infuſion, as directed in the quotidian. When the operation of the vomit is over, if there remains
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some hours before the return of the fever, the bark may be ordered directly, and one drachm taken every hour till the approach of the fever ; during the continuance of which let every circumstance be carefully observed, and compared with what happened during the time of the first paroxysm. By means of this comparison, a judgment may be formed, and the quantity of bark necessary to complete the cure determined ; for seldom will the bark fail, when timely ordered and properly given. From frequent experience I can recommend the bark as a safe and efficacious medicine for completing a cure ; and in few cases will any other medicine be needed. Different circumstances require that the manner of using it be varied : sometimes medicines ought to be added, which are effectual for removing such complaints as are joined to the tertian.

When symptoms threaten danger, the bark ought to be given without delay ; when there is no appearance of danger, the primæ viæ may be emptied by emetics and cathartics before the bark is ordered. But should the bark fail in answering our expectations, or when patients have an aver-

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sion to it, neutral salts, and bitters, may be ordered in its stead.

I have generally found crude sal ammoniac most efficacious; yet in some cold phlegmatic constitutions, alkaline salts deserve the preference: in hot temperaments, nitre, sal polychreste, and vitriolated tartar, are useful remedies. If we are afraid of putrefaction, mineral and vegetable acids will effectually prevent its happening. In some cases, to the bitters may be added aromatics and astringents. Chalybeates, by strengthening the body, often produce an excellent effect. But in order to proceed more methodically, I shall in general direct what may be done during the cold fit, what is proper in the state and decline, and what in the interval: the directions here given will also serve in the quartan.

In the cold fit, we may order frictions of the extremities, or applications to be made of emollient and aromatic fomentations used warm, or warm clothes, bricks, or any thing that keeps the heat for some time. Blisters applied to the wrists and ancles will be of singular service in some cases: even sinapisms laid to the soles of the feet or palms of the hands might, per-

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haps, in many cases prevent those fatal symptoms that practitioners complain of. In case of loathing, or vomiting, the same practice may be followed as directed in the general method of cure.

Dr. Alexander Thomson gave a vomit on the first appearance of the paroxysm; but when the cold was accompanied with trembling and no loathing, he delayed the emetic till the state, or gave it whenever the loathing appeared.

Dr. Van Swieten mentions a peasant who cured many agues by a poultice of bruised meadow crow-foot: this he tied between the fingers; it occasioned a heat, pain, and erosion, and at the same time cured the fever.

This excellent author observes, that anointing the spine of the back with penetrating aromatic substances, has often proved useful in curing intermittents.

In the state, absorbents and diaphoretics may be given in order to keep up the sweat; in the decline, infusions of bitters will much avail; chamomile-flowers, lesser centaury tops, wormwood, &c. are of considerable use.

When the use of vomits is indicated, the interval is the proper time for giving them. In some cases tartar emetic or antimonial wine ought to be preferred to ipecacuanha; white vitriol I have often seen given with success; and in this fever I have often used an infusion of asarabacca leaves in boiling water. In some cases I have known them operate frequently, and remove the fever; in other cases, no vomiting ensued, though the patients found themselves very sick for a while; but this gradually went off, and no paroxysm returned.

Yet I have seen this medicine ineffectual, when used in agues that had continued long. When no stool followed from the use of the vomit, it will be proper to order a laxative to empty the primæ viæ, and at the same time strengthen them. This may be effected by joining rhubarb and the bark together, which seems to have been first practised by Dr. Lancisi, who mentions that he was the first who had found this successful in Italy, about twenty years before 1709, the year in which he wrote the letter wherein he communicates it. Dr.
Mead

Mead has added his testimony to the usefulness of this practice. His words are:

“ Long experience has taught me that it
 “ is quite necessary to add a small quantity
 “ of rhubarb to the Peruvian bark, so as
 “ to procure two stools at least every day.
 “ After having given one drachm or two
 “ of rhubarb, I omit the purgative, and
 “ give the febrifuge alone. When the dis-
 “ ease is carried off in this manner, there
 “ is always less danger of a relapse.”

Lancisi declares from experience, that tertians easily yield to an antimonial vomit, and bitter decoctions; particularly to those of flowers of St. John's wort, or sage; as also to powder of choice myrrh, or Peruvian bark mixed with rhubarb.

Stahl recommends in this fever, powder of shells, diaphoretic antimony, regenerate nitre, and alexipharmac essences, resinous gums, pepper, roots of wake-robin, or dragons; but he cautions against the use of myrrh. He orders the days free from the fever, an easy laxative of bitter extracts, of gums and aloes, or an infusion of bitter herbs, with rhubarb, senna, hellebore, suiting the prescription to the particular case

and condition of the patient, and then removes the fever by the bark.

Cohaufen in the *Acta Physica Medica* describes his method of curing this fever; and as it is different from these mentioned, I shall insert it.

“ I gave three hours before the fit, a
 “ drachm of rhubarb with fifteen grains
 “ of antimoniated nitre; and as soon as
 “ the paroxysm was ended, I gave half a
 “ drachm of rhubarb. This was repeated
 “ every morning and evening; and by it the
 “ fever was cured. Or I gave commonly
 “ the rhubarb in powder with sal poly-
 “ chreste, of each fifteen grains; this the
 “ patient took every three or four hours,
 “ from which followed a moderate diar-
 “ rhœa. The patients bore the operation
 “ well; and in this manner was the fever
 “ more easily removed than in the ordinary
 “ way.”

C H A P. VIII.

Of the QUARTAN FEVER.

THE symptoms in this fever are so like those in the tertian, that there is no occasion either to account for them, or take notice of any indications of cure, except such as are already made mention of on the tertian. But besides such symptoms as are common to both, there is peculiar to this a tenesmus, and ineffectual inclination to make water; and as it is not improbable that these are caused by an irritation of the sphincter of the anus, and of that muscle in the bladder, some regard must be paid to this, in the method of cure.

In this, as well as in the other intermittent fevers, the stomach and primæ viæ ought first to be emptied, before we order any other medicine, with the view of curing the disease.

The proper medicines for this purpose are already mentioned when treating on the tertian; but as this fever sometimes proves very obstinate, more violent emetics

have been tried, and such trials attended with success.

“ I have seen,” says Hoffman, “ in an
 “ obstinate quartan, from fifteen grains of
 “ white vitriol with ten grains of saffron
 “ taken in fat broth, a vomiting, with
 “ great oppression at stomach ; and after a
 “ few days the fever left the patient.”

In another place he asserts that he had observed the same effect from six grains of blue vitriol : he likewise recommends essence of rhubarb and gentian prepared with lixivium of salt of tartar and urinous spirit of sal ammoniac. In a very obstinate quartan, he is of opinion that sweet mercury or diaphoretics are preferable medicines ; and although they raise a salivation, it is not to be feared ; for, as it happens, the fever often disappears.

Dr. Mead asserts, that quartans are of more difficult cure than any other intermittents ; however, it is generally performed by joining snake-root and steel with the bark : he also cured them with a powder composed of chamomile-flowers, myrrh, salt of wormwood, and a little allum.

Some deadly poisons, as arsenick, nuces
 vomicæ,

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vomicæ, have been tried by some physicians, and, as they assert, attended with success; but let the conscientious physician be very cautious how he prescribes a medicine which, if it is not successful, may prove pernicious; i. e. if it does not restore health, may hurry on the death of the patient.

Baglivi asserts, that quartans are often cured by bleeding near the root of the tongue, even after other remedies have been tried in vain.

As to the tenesmus and suppression of urine, they may often be removed by proper injections, or the internal use of antispasmodics: fomentations of aromatic and anodyne herbs will answer the same purpose, or spirituous liquors joined to anodynes, and rubbed on the parts affected. When the bark is properly administered, it cures not only the fever, but likewise removes every symptom that attends it.

In very urging cases, to prevent danger, Torti sometimes gave before the access of the fever six drachms, or one ounce properly divided; and when the lethal symptom is only twelve hours distant, he advises to give even more than six drachms at once.

I can

I can here assert from much experience, that the earlier in the fever the bark is administered, the surer is its success as to the removing of the fever, and preventing the bad consequences that too frequently happen, when the patient is harrassed by evacuations. I have seen several in such circumstances quite weakened and thin, while their pale and scarcely animated looks too plainly shewed how injudiciously they had been treated; and yet many of them by the bark, and a proper regimen, I have seen in a very short time restored to health and vigour. But the cases of such patients as are greatly reduced, and have swallowed incredible quantities of the bark injudiciously prescribed, are attended with more difficulty. Such patients have I often met with who had been seized with the fever in England, and had taken the bark by the advice of some ignorant apothecary.

Several of these, reduced to a miserable state, unable to gain their living by labour, have been restored to health by such a variety of medicines, and such different methods, that it would prove tedious to relate them. Let me only observe here, that in many of the cases other diseases were
 joined,

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joined, and a particular regard was paid to these in the method of cure. This I would heartily recommend to my brethren.

Let them ever be attentive to the condition of the patient ; and when the best approved of medicines fail, reason will often discover a sure and easy method of restoring of health.

A proper regimen, exercise, change of air, agreeable amusements, alteration of dress, bathing, frictions, external applications, &c. when judiciously ordered, will much assist in promoting recovery, even when the patient reaps little benefit from the use of medicines.

When the fever is too soon stopped by the use of the bark, unlucky symptoms sometimes ensue ; to remedy which the restoring of the fever is the most effectual method of relief ; and this may be brought about, according to Ramazzini, from the use of sal ammoniac ; in some cases by purgatives.

After recovery, the patients ought to be particularly cautious to shun wet, a cold moist air, every thing that exhausts the spirits or fatigues the body, and all excess, whether in eating or drinking.

Lancisi

Lancisi advises those who are recovering to abstain from sweet or sour substances, whether in meat or drink, for at least forty days, from a fear lest these should occasion a relapse.

Happy is it for the inhabitants of Scotland, that in few places of their native country are they subject to agues; and even in such countries abroad where intermittents are endemic, the Scots are less apt to be seized with them than the inhabitants of several other countries. Yet in many of the Scots who have been seized with them in America, Germany, England, Holland, or other countries on their return home, the agues are generally so obstinate and irregular, their constitutions so much hurt, and their bodies so weak, that it is not easy to foresee the event, or restore them to health; though by a proper attention to every circumstance, and particularly to what is the effect of every medicine administered, the physician will soon be enabled to predict the event, and restore the patients to health in many cases.

Let the above then suffice in general on agues; for to descend to particulars I leave till a future work, in which I propose to illustrate every thing by cases annexed.

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I now proceed to a class of fevers which I shall call Eruptive. It is probable that these were believed by the ancients to be only irregular fevers of the first class which I have constituted, and that the eruptions were only regarded as symptoms, and sometimes very dangerous or fatal ones : but as some modern physicians, after having attentively studied them, have accurately described their course and exits as distinct fevers, so I shall comply with their sentiments, and consider them as particular fevers of their kind.

A T R E A-

THE HISTORY OF THE
CITY OF LONDON
FROM THE FOUNDATION
TO THE PRESENT
TIME
BY
JOHN STOW
1618

ALBION

A

T R E A T I S E

ON

ERUPTIVE FEVERS.

REAR TIRE

REAR TIRE

A
T R E A T I S E
O N
E R U P T I V E F E V E R S.

C H A P. I.

Of ERUPTIVE FEVERS.

I Now proceed to the third class of fevers, which may with propriety of language be called Eruptive, as eruptions are essential to most of them; for though the nervous fever is not always attended with eruptions, yet it frequently is; and when it is not, it seems to resemble this class of fevers more nearly than any other, both in the symptoms and course of the disease.

M

Seve-

Several excellent authors have written on these fevers, as Stahl, Hoffman, Sydenham, &c. but none seems to have studied them with greater attention, or observed them more carefully, than Dr. Huxham. In the works of authors mention is made of many other eruptive fevers, besides these I shall describe, as the nettle fever, purple, scarlet, erysipelas, &c. and some have included the measles and small-pox; but of these two last, I shall treat particularly after this; and the four mentioned above, with some others, seem to me to belong to another class of diseases, where I shall perhaps afterwards have occasion to take notice of them.

The chief fevers of this kind I shall describe, are, first, the slow nervous fever: the second is the miliary: the third, the petechial, to which the jail fever may be referred: and the fourth is the plague: for though appearances may vary in each of the above fevers, they can for the most part be reduced to some of these fevers which I intend to treat of.

C H A P. II.

Of the SLOW NERVOUS FEVER in general.

THIS disease seems to be called Fever improperly, as heat, an essential symptom of a fever, is here often wanting; for we seldom say any person is in a fever, unless when the heat is greater than that of the body in a state of health. The epithet Slow is very proper, as it often harrasses the patient for a great while; that of Nervous is applied with propriety, as many of the complaints are well known to arise from the nerves being affected.

In the following description is included the most remarkable symptoms that supervene through the course of the disease; all of them have been frequently observed in different patients, though in vain will the inexperienced physician expect to meet with all of them in every case that occurs. In few fevers do we meet with so great a variety as to the time of the symptoms, and their manner of happening; nor is it easy either to foresee the symptoms that are to happen in this fever, or predict the event,

whether as to life or death, unless when it is epidemic, and has prevailed for some time: for after having carefully observed every symptom in a number of patients, we shall often find its course no otherwise irregular than what may result from peculiarities in the constitutions or circumstances of the patients. Food may prove hurtful either in quantity or quality; medicines improperly administered, cold admitted, &c. may have done mischief. Allowances being made for what is above made mention of, we may frequently foresee the symptoms, and predict the event, with nearly as much certainty as in continual fevers: only I must here observe, that the efforts of nature during this disease, are not only inconstant, but often interrupted: the vital force is frequently small, and even at times seems to be suspended, as in fainting; and hence her operations are retarded, and the time of the fever prolonged. It may also be observed, that the greater and more constant the heat is, the sooner is the fever judged; the less the heat, the frequenter the faintings, and the more the nervous complaints prevail, the longer the fever, and the more uncertain the event, unless
in

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in such circumstances where the severity of the symptoms indicate approaching death

Does the patient bear the fever easily? is his mind quiet, and his rest not greatly disturbed? is the raving small, and the nerves little affected? the vital and animal functions tolerably regular and constant? has medicines used internally, or external applications, the desired effect? the physician with pleasure perceives the lucky situation, and in his mind forebodes the salutary event. But let him be cautious in proclaiming it; some intruding old woman, or ignorant apothecary, may prescribe or apply remedies injudiciously; and while the physician is exulting with the well-founded hopes of the patient's recovery, the unhappy sufferer falls a victim to the folly of his friends, and the ignorance of pretenders.

In every case that occurs, let the physician investigate the cause of the disease, account to himself for the symptoms, and foresee the effect of applications, whether internal or external. If any thing happens contrary to expectation, let him inquire into the reason of his disappointment, as this will often guide him to a sure method

of cure. I now proceed to narrate in the concise manner the symptoms proper to the disease.

C H A P. III.

Of the NERVOUS FEVER.

IT begins with a weariness, chillness, and shuddering in a small degree; then follow flashes of heat, a dejection of spirits, weight and giddiness of the head, a loathing, and sometimes vomiting of tasteless phlegm; and although the patient seems free from complaints for some hours, yet the symptoms return with greater severity, especially towards night; then the head is more heavy and giddy, the heat greater than through the day, the pulse quick and weak, with an oppressive breathing, a pain and coldness affects the hinder part of the head, and sometimes a heavy pain is felt along the crown of the head. These are frequently followed by a small raving. Thus the patient continues for five or six days, of a sickly and pale look, is restless, oppressed, and commonly without sleep, though often heavy and drowsy; the

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the pulse during this time is generally quick, weak, and unequal, sometimes fluttering, slow, and intermitting; then on a flushing of the face it grows quick, and afterwards calm and equal. These, as well as the chills, are shifting and various. At times the face is coloured and hot, when the extremities are very cold; the urine is commonly pale, and often clear; sometimes of a whey colour, without sediment; at other times particles like bran are seen swimming up and down in it.

The tongue in the beginning is seldom dry or discoloured, but in some patients covered with a thin whitish slime: in the state or close of the disease, it is in many patients dry and chapped; yet they seldom complain of thirst, though sometimes of a heat in the tongue.

About the seventh or eighth day, the giddiness and pain of the head becomes greater, with a sounding in the ears, and afterwards a raving; the oppression at heart is more urgent, and brings on a real fainting, if the patient sits upright. Cold sweats come out on the forehead, and back of the hands. If the urine is now pale or clear, a raving is to be expected, with

trembling and starting of the tendons: the raving is seldom violent, but rather a muttering and dozing.

A difficulty of breathing and oppression about the vitals indicate a miliary eruption to happen on the seventh, ninth, or eleventh day of the fever, or later.

Seldom does there any evident crisis happen, unless we reckon sound sleep such; for it is often the mean of recovery; but the attentive physician may hail the approaches of health, when the pulse becomes soft and equal, with a proper degree of strength.

The skin turns moist and warm, the sleep is sound, the look is changed to the better, and the eye shews more of life in the waking intervals; for the eye is here an excellent index of the state of the body.

Salutary symptoms are, gentle sweats over the whole body, a suppuration below the ear, on the neck, or other part of the body; white aphthæ; a plentiful spitting; a moist tongue; an easy looseness in the state that carries off the raving and dozing; likewise a hot painful eruption about the lips or nose; and lastly, when the fever changes into a regular intermittent.

Of

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Of fatal presage are, black aphthæ; brown, livid, or black petechiæ, or livid vesicles; if the stools are frequent, lead-coloured, black, and watery, or the sweats profuse and clammy; cold sweats about the head and neck, with a shuddering, particularly if joined to a dysentery, or hic-cough; difficult swallowing, choaking in the throat: when violent convulsions come on, death soon after is frequently the consequence.

C H A P. IV.

Of the CURE of the SLOW NERVOUS FEVER.

WHEN the physician is called to patients labouring under the disease, he must be particularly attentive to the state of the patient and time of the fever; from these must he draw his indications of cure. And here it is of great use to make himself well acquainted with every deviation from health that preceded the first appearance of the fever, or that happened since the time the patient was seized. A sensible keeper, on whose account he can rely, is of great
advan-

advantage, as the cure of the disease depends on his forming a proper judgment. This might be proved by many particular cases, which I forbear to relate, as I intend only to give the cure in general ; but I shall first premise a few things with respect to the disease, and the proper indication of cure.

I shall in general take notice, that the vital force is here not only irregular, but often so small, as to endanger the life of the patient. It is known to physicians that the strength of the body is owing to the efficacy of the nerves being properly and constantly exerted. When the nerves are hindered from acting in any particular part, that part becomes weak ; if universally impeded, the whole body is enfeebled : if their efficacy is too strongly exerted in any particular part, a violent spasm or contraction happens ; if this is universal, the whole body becomes convulsed. As these symptoms arise from the nerves being affected, and frequently appear during the course of this fever, I may warrantably conclude that the cause of this fever is some matter affecting the nerves, so as sometimes to hinder their influence, and at other times to occasion

sion too great an exertion of it. In confirmation of the above, I may add the method which nature takes in relieving the patients by a vomiting in the beginning, and afterwards by means of various evacuations, as they are already made mention of in the collection of the several salutary symptoms, all of which I have often observed during the course of this disease, in a number of patients.

The first indication of cure is, to relieve the nerves by proper and easy evacuations. The second is, to keep up the vital force, or raise it to a proper degree when it is too much depressed. The third is, to guard against spasms or convulsions happening, or to remove them when they do happen. The fourth is, to prevent that change in the body which tends to the destruction of the patient, or the appearance of those symptoms which are of fatal presage, as they are already narrated: many of them seem to result from a tendency to putrefaction in the humours, and some from the weakness of the solids.

Some general observations, from their utility, deserve to be premised.

1. Great evacuations are hurtful.

2. The

2. The giving of medicines whose operations are violent, ought to be avoided.

3. The cure in general is effected by gradually changing the habit of body.

4. Repeated experiences convince us of the great efficacy and excellent virtue of wine. Canary or Malaga is the most pleasant to the patients, though many other kinds of wine may be brought into use, and, when suited to the constitution and circumstances of the sick, will prove effectual remedies.

I now proceed to the cure. In the beginning of the fever, when there is a nausea, or oppression at stomach, a vomit of ipecacuanha gives relief; it may be followed by some easy laxative, to empty the primæ viæ: diaphoretics may be used in such quantities as serve to keep up a breathing easy sweat, the whole time of the fever.

If during the fever a weakness, coldness, or dejection of spirits happen, castor, saffron, volatile salts, and urinous spirits, as also saline mixtures, not only promote a diaphoresis, but likewise prove antispasmodic. Wine cheers the spirits, and increases the vital force; and in ordinary cases, if it is judiciously ordered, there seldom will be

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occasion for any other medicine. When the symptoms threaten danger from the efficacy of the nerves being either too much or too little exerted, blisters certainly relieve the patient by mitigating the symptoms.

These should be applied with caution ; for when the evacuation from them is too great, weakness, oppression, and dejection follows ; but even when those happen, they may in many cases be removed by sack-whey, or wine. But if after using the above for some time, they are found ineffectual, claret wine boiled with aromatics, and frequently given in small quantities, will generally answer our expectations, in relieving the above-mentioned and other languors.

In raving, we must enquire into the cause. If it proceeds from weakness, which is easily known by the depressed pulse and feeble circulation, as also by the state of the body, wine and cordials are the best remedies. When the fever is accompanied with spasms or convulsions, castor, camphire, cinnabar, musk, foetid gums, &c. given internally ; and the applications of blisters to the head or extremities, &c. seldom fail in procuring relief. But when the
face

face is red, the eyes inflamed with a wild stare, and the patient furious, cupping and scarifying the shoulders, or applying leeches to the temples, bid fair for success. In such circumstances venæsection is unsafe, as it weakens the body too much : if the extremities at the same time are cold, sinapisms applied to the soles of the feet and palms of the hands, raise a heat in the extremities, and cause a very sensible revulsion from the head, which greatly relieves the patient.

Sometimes at the height of the fever a sleeping comes on, and continues for one day, two days, or even longer : this, when it is critical, is sound and undisturbed.

The skin is warm and moist, the pulse equal, the tongue gradually changes to the better, and the looks of the patients in the waking interval are more lively.

In some cases the urine deposits a sediment ; but this is not constantly observed.

In opposition to this, in the state of the fever, is a comatose disposition, during which the patient is oppressed, the tongue dry and chapt ; he raves, his tendons start, and many other symptoms continue. As
nature

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nature often carries off these symptoms by means of a diarrhœa, let the physician enquire into the state of the abdomen. If he finds it swoln, is sensible of a motion or noise inwardly, the looseness approaches, and may be promoted by emollient and gently stimulating clysters ; or even a laxative ptisan may bring it about with safety. In some cases emollient fomentations or softening ointments may be applied outwardly to the belly.

If, on the contrary, the diarrhœa is violent and the evacuation great, it ought to be restrained with caution ; particularly by means of astringents, as stopping it suddenly is often of bad consequence ; nay, in some cases, of fatal. But it will often be in the power of the intelligent physician to mitigate the discharge by the intestines, and promote that by the skin with safety ; which change may be brought about by such a variety of different methods, that I forbear to mention any particular one. As the state of the bowels is best discovered by examining the tongue, let the physician be attentive to the condition of this. When it is dry and hard, it points out the use of diluting and emollient liquors. Is it of a
blackish

blackish colour, antiseptic medicines may prevent mischief. Are the aphthæ numerous and white, experience convinces us of the efficacy of the bark: Does even the appearance of black aphthæ terrify us, it is the indispensable duty of the physician to attempt every thing that reason dictates for the relief of the patient, as it is then even better to try a doubtful remedy, than give up the patient to certain destruction. To answer the fourth indication, antiseptic medicines, such as vegetable acids, ripe fruits, wines, have a very good effect, as well in preventing putrefaction, as in removing it. Neutral salts, as spir. minderer. saline mixtures, nitre, &c. as also rad. contrayerv. serpentar. Virginian. and many vegetables, are very useful; but when there is an evident tendency to a gangrene, or when one is already formed, and seems to threaten the life of the patient, the bark is preferable to other medicines, from its well known virtue in curing gangrenes and mortifications.

I cannot help here taking notice, that gangrenes in this fever, when they happen externally, are sometimes critical; for after they appear, the severity of the symptoms

toms sensibly abates. Query, Is it not probable that they prove salutary drains of the morbid matter? Many cases incline me to believe this; and hence they ought to be dressed with such applications as promote or keep up a discharge of matter, as long as this is attended with relief to the patients, or seems necessary from the circumstances in which they are. This seems likewise to be the intention of nature; for I have several times observed, that although the utmost care was employed about the sick by changing their posture frequently, and applying shammy leather, or other soft substances, under the parts on which the sick were laid, yet all proved ineffectual; gangrenes happened, and in place of a fatal, were attended with a salutary effect: but this is not always the case.

When the patients are exhausted for want of rest, camphire is both safe and efficacious. In some cases opium may be joined; in other cases, from particular symptoms that attend the above complaint, it is better to join castor and ass. fœtid. to the camphire, as in the fœtid pills of the Edinburgh Dispensatory; and frequent experience has taught me to prefer this form.

Opiates in some cases may be joined to diaphoretics, and, if judiciously prescribed, will seldom fail of success.

When the patient is recovering, easy laxatives properly repeated greatly promote the return of health. Various methods may be used to advance the recovery of the patients; but it would oblige me to descend to particulars to point them out, which I avoid, as it is not my design to treat of the cure otherwise than in general. I shall only observe here, that I have seen some constitutions much mended from severe fevers of this kind: those who were sickly, meagre, and ill-looking, before the attack of the fever, after recovery became healthy and plump; and their looks were thereby altered greatly to the better.

Of the MILIARY FEVER in general.

WHEN treating on the Nervous Fever, I observed the indications of a miliary eruption about to happen. I come now to treat of a fever in which this is an essential symptom, and from whence it has obtained the name of Miliary.

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ERUPTIVE FEVERS. 179

Although it forms no part of my plan to enquire into the causes of diseases, yet I cannot help here observing, that the cause of this fever seems to be a noxious matter exceedingly offensive to the nerves, particularly to those of the vitals, though sensibly affecting many other parts of the body, while it continues in the course of the circulation: hence the vital force is irregularly exerted, and the animal functions disturbed, till by a salutary effort of nature the matter is thrown out from the circulation, and deposited in the skin, where it destroys the contiguous parts. Whatever part of this matter is volatile evaporates into the air, while the fixed hardens, and falls off in scales along with the cuticle. But this will be better understood from a narration of the symptoms.

C H A P. V.

Of the MILIARY FEVER.

IN the attack the body shudders a little; this is followed by a considerable heat, and so great weakness as sometimes brings on fainting; the vitals are as if corded;

there is great oppression, deep sighs, restlessness ; or if the patient sleeps, it is disturbed, and unrefreshing ; wakefulness ; a pricking heat is felt in the back and palms of the hands, with vicissitudes of cold, shivering, and heat, within the skin of the back ; the skin is dry, and the belly bound. To these succeeds the miliary eruption, whether white or red, and sometimes they are interspersed : They first appear on the neck, then the breast, back, and lastly, on the arms and hands. After the eruption, the severe symptoms are mitigated ; the pulse, before hard, contracted, and quick, becomes soft, free, and resembles a wave in its motion ; the dejection of mind is removed, the dried skin feels moist, the bound belly becomes easy, the vesicles grow gradually larger with bad smelling ichor, the urine is of a deeper colour, a sweat with an offensive smell peculiar to this eruption breaks out, and in seven or more days, the pustules dry, fall off in scales, and disappear : this is attended with great itching of the extremities ; and the patients afterwards gradually recover their former state of health.

Good signs are, when the patient is relieved

ERUPTIVE FEVERS. 181

lieved by the eruption; whitish and moist aphthæ, with a plentiful spitting, red pimples; the livelier their colour, the better.

Suspected signs are, when the pulse continues hard, or is increased without sleep after the eruption; a great restlessness, and difficult breathing; when through the course of the disease the sweats are profuse, the urine copious and pale, a constant inclination to make water; when the belly is very loose, with gripes.

Bad signs are, when the pustules disappear after the eruption, and the severity of the symptoms continues; when the pustules cannot be forced out; and this state is attended with increased sighing, oppression in the breast, a choaking, weakness, anxiety, and restlessness.

Fatal signs are, when the vitals are hot, and the extremities cold, or the reverse; in the last case the patient dies in a faint; when the pustules are black and dry, the spittle tough, and in small quantities.
MEAD.

INTRODUCTION to the CURE of the
MILIARY FEVER.

FROM what is observed in the general introduction and history of the disease, the indications of cure will be; first, to determine the matter to the skin, and to favour its exit and deposition: the second, to keep up the perspiration, to promote the discharge of the saliva, and keep the belly open: the third, to prevent great evacuations of whatever kind, as they are very hurtful in this fever (see the suspected symptoms already made mention of): the fourth, to guard against weakness, spissitude, and immeability of the humours, from which the fatal symptoms seem to result. Before I proceed to the cure, I shall observe in general, that the pustules, which resemble millet-seeds in their figure, vary both in size and colour: the largest and reddest are the best, and give the greatest relief to the patient; and although the white are not followed by such relief to the patients, they are critical, as well as the red; and the crisis from them is incomplete, unless when nature is assisted, and the matter
that

that remains in the circulation is thrown off by art.

The smaller and less perceptible they are, the more is the assistance of art required. The more in number and the severer the symptoms are that precede the eruption, the more ought the physician to exert himself in alleviating the symptoms, and promoting the eruption.

In other eruptive fevers, as well as in this, particular care ought to be taken to guard against the retrocession of the excluded matter, as the worst of the symptoms are thereby brought on anew to the great danger of the patient. See the bad symptoms annexed to the history of the fever.

C H A P. VI.

Of the CURE of the MILIARY FEVER.

THE first indication of cure is answered by venæsection, which not only relieves the symptoms, but likewise promotes the eruption : this may even be performed after the eruption when it is necessary, and the patients bear it well. If the pustules are

red, blood may be drawn pretty copiously ; but if they are white, we must be more sparing of the vital fluid. When they are white and small, it is better to abstain from phlebotomy.

To keep the skin moist by bathing or fomentations is useful, both before and after the eruption ; let them be of a proper degree of heat, and applied with caution : bathing may likewise be used in the decline of the disease, as it promotes recovery.

To answer the second indication, we may use such inward medicines as promote the eruption, or keep out the excluded matter : the most useful are, rad. scorzon. serpent. Virginian. herb. scord. &c. most kinds of aromatics, saffron, opiates, diaphoretics, vinegar-whey, sack-whey, tea, coffee, &c. Externally, blisters make a salutary evacuation by the skin, and greatly relieve the patient : they are required when the pustules are white, and in such cases seem necessary to complete the crisis, in which nature is defective. Let them be applied with caution ; for when the evacuation from them is too great and sudden, the patient is thereby much weakened, which state is attended with danger.

When the vesicles are so small as scarcely to be perceived; besides the blisters, which ought to be continued, we may give easy laxatives, so as to drain off part of the offending matter by the *primæ viæ*; and this method is both safe and salutary.

In what manner too great evacuations are to be lessened or stopped, I have already mentioned when on Continual Fevers.

Emollient gargles, with vegetable acids, as lemon juice, &c. are of use in keeping up the discharge of the spittle.

Diluent and emollient decoctions with vegetable acids or nitre prove serviceable in keeping the humours from becoming too viscid: these along with proper gargles are of considerable use, when aphthæ appear: the Peruvian bark in such circumstances exerts a particular efficacy.

I come now to treat of a fever which was only considered as a symptom by Hippocrates, and has also been by several eminent authors, as Boerhaave, &c. After having observed it carefully, I take it to be distinct in its course, though inconstant and various as to some of its symptoms.

GENERAL OBSERVATIONS on the
PETECHIAL FEVER.

THE symptoms so numerous, various, and severe, in this fever, so little reducible to any of the continual or eruptive fevers already described, and the infection so frequently observed, joined to the unexpected death of so many patients, have occasioned the common appellation of Contagious and Malignant. The appearance of those spots that are essential to it, and that so nearly resemble flea-bites, have given it the name of Petechial, by which I shall constantly call it.

That this fever is likewise caused by some offensive matter, is rendered probable, by its being infectious, the disagreeable smell from the several evacuations, the evacuations themselves, the eruption, the crises, as they are severally to be narrated.

Whether those that give relief by the skin, as blisters; or angry eruptions; or complete crises, such as hæmorrhages, looseness, vomiting, spitting copiously, deafness, and sleeping, both of which are accompanied with easy sweats when salutary; it

it is of the utmost importance in this fever to observe the efforts of nature, and to encourage or oppose them, according to the circumstances. Some general observations will put this matter in a proper light.

Copious sweats happening on the unequal days, or on the critical days, are neither salutary nor critical, though they sometimes abate the rigour of the symptoms.

When the matter is too soon deposited on the skin, as also when the petechiæ disappear, these are always dangerous, frequently fatal.

When the eruption is not universal; when in place of the petechiæ, the skin appears like variegated marble; when little matter is deposited, or when any violent evacuation supplies the place of the petechiæ, the danger is great.

When the patients are furious, obstinate, and ill-natured; when the look has a wild stare, the eyes free from inflammation, and a trembling comes on, convulsions are the consequence; and these are often violent, sometimes fatal.

The appearances in the urine are very various and changeable, and little is to be learned from its inspection as to the disease.

ease. Thick sediment in the urine, such as happens in Continual Fevers, though it is observed on the critical days, is not to be trusted, even when accompanied with considerable relief from the symptoms: the bad symptoms soon after return with violence, and the urine appears not long after crude, as I have often observed.

When the urine deposites a copious and pellucid sediment like clear mucus, it is a bad omen.

The more regular the pulse, and the more equal the vital force through the course of the fever, the greater the hope of a salutary event; but not to weary the reader with general observations, I shall subjoin a description of the disease, and add to this three cases, as they were taken down in a journal, when attending the patients. How far a general description of a disease differs from a particular one, the reader will have it in his power to judge of by attentively considering the first, and comparing it with the last; and although there are many symptoms in the description not to be met with in the cases, yet there is not a symptom in the description that has not been often observed by accurate practitioners.

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oners. The judicious, after having long observed every thing that happened in particular cases, select from these such parts as compose a whole; by this means exhibiting to the learner whatever they believe to be most useful to him, in forming a proper judgment.

C H A P. VII.

Of the PETECHIAL FEVER.

IN the beginning, the rigors when they happen are violent; the heats are sudden and remit, though afterwards sharp and permanent; the pulse is tense or hard, commonly quick and small, though sometimes slow and regular, for a time, and then fluttering and unequal; there is an oppression at stomach, with a stinging pain of the breast; the head aches; giddiness, loathing, and vomiting, are considerable; a fixed pain is felt in one or both temples, over one or both eye-brows, frequently in the bottom of the orbits of the eyes; the eyes always appear full, heavy, yellowish, and after a little inflamed; the face looks bloated and dead-coloured; the temporal arteries

arteries throb, with a sounding in the ears ; there is a great depression of spirits, weakness and faintings, though the pulse seems strong.

The breathing is difficult, and interrupted with sighing and sobbing ; the breath is hot, and the smell offensive ; there is a pain in the back, loins, and joints ; an universal weariness, with a painful stretching of the fibres in the hams of the legs ; the bones are as if broke or bruised ; a great inward heat continues through the course of the disease ; a dryness of the jaws ; a cold along the back bone ; all complain of a bitter taste in the mouth, and heat at stomach ; the sweat smells offensively : sometimes there is a cough, and great proneness to sweating through the whole course of the disease ; sometimes there is a perpetual vomiting of dark green or black matter that smells offensively, attended with a great heat and oppressive pain in the pit of the stomach ; at other times a troublesome hic-cough.

The tongue, at first white, grows daily more dark ; and sometimes it is of a shining livid colour, with a dark bubble at the top : this often continues many days after a favourable crisis.

At

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At the height of the disease it generally becomes vastly dry, stiff, and black, or of a dark brown : this renders the speech unintelligible.

The thirst in the increase of the fever is commonly great, sometimes unquenchable ; the lips and tongue near the state are furred over with black tough matter. In the attack the urine is often crude and pale, but grows much higher-coloured in the advance, and often resembles yellowish urine tinged with blood ; it is without the least sediment, or even cloud, and so continues for several days ; then by degrees it grows darker, sometimes almost black, and smells rank and offensive.

The stools, especially near the state, or in the decline of the fever, are for the most part stinking, green, livid, or black, frequently with severe gripes or blood.

Convulsions, or starting of the tendons, in some cases continue through the whole disease.

Of the Several C R I S E S.

STAHL has observed the crises happen the first, third, or fourth day by a breath-

ing sweat coming on early in the morning ; the earlier this happens, the more complete the crisis ; as likewise by an eruption the seventh, eleventh, or fourteenth day : nor is this crisis followed by any sensible excretion, according to Ramazzini.

The petechiæ has been observed to come out the fourth and seventh day, after rigors had happened. The size of the petechiæ differs ; some are large and red, others less, and of a purple colour. The order of their appearance is first on the breast and neck, then on the arms and thighs, even to the feet ; none are seen on the face : the larger commonly continue till the twelfth day, the less to the fifteenth, or even to the twenty-second day. The following for the most part prove complete crises ; deafness the fifth, ninth, eleventh, or fourteenth day : hæmorrhages of the nose the eighth, ninth, and thirteenth day, when copious ; a looseness the ninth, tenth, and fifteenth day ; the longer it continues the better : vomiting on the tenth or fifteenth day, first of pituita, then of bitter and sharp matter, with remission of the symptoms : sleepiness the thirteenth, fifteenth, or seventeenth day : a plentiful spitting of saliva on the eleventh or fifteenth day. Sa-

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Salutary symptoms are, pains of the head; an aching, smarting, red rash; large, fretting, watery blisters on the back, breast, or shoulders; a hot and angry eruption about the lips, or nose. Ritter has observed, that convulsions, gathering of moats, raving, tossing in the bed, cold sweats, weeping, pale urine, starting of the tendons, and convulsions of the lower jaw, about the eleventh or thirteenth day, with a good pulse, threatened no evil, but portended a crisis.

A constant and regular pulse through the course of the fever, may well be depended upon as the most salutary sign.

Signs of bad omen are, the petechiæ appearing before the seventh day; when they do not break out over the whole body; when they are livid, black, or brown; when they are so flat as not to be seen, unless when viewed transversely.

Deadly symptoms are, a severe hiccough; evacuating worms by the mouth; vomiting on the critical days, if severe; small hæmorrhages; to be without thirst; a small pulse, and suppression of urine; a loose belly; when the belly continues swollen, and hard after profuse stools; a bound bel-

ly; the boulder the worse; black bluish marks like bruises, with lividity and coldness of the extremities; an inflammation of the throat in the state of the fever; when the skin of the breast appears as if marbled over; profuse sweats about the eleventh or twelfth day; the petechiæ disappearing, and miliary pustules breaking out; a difficult breathing that raises the breast and clavicles; a lethargy the fifth or seventh day, with a trembling pulse; a starting of the tendons in the wrist, and pulling of the under jaw, with an irregular pulse; gaping, with distortion of the mouth; when the tongue falters; when hearing is very acute.

In the following cases the reader will meet with a faithful relation of the most remarkable symptoms in the order in which they happened, without mentioning the medicines, as I intend some time or other, God willing, to publish these and many other cases more fully, with a commentary and particular observations on the use and efficacy of every medicine.

C A S E I.

———, a plumber, aged above Nov. 4,
 thirty, of a robust constitution, af- 1759-
 ter having walked hard for some miles,
 by which he had greatly warmed himself,
 sat down in church, where he soon became
 very cold, and shivered much. Here he
 continued for some hours, and from thence
 he went home, and found himself so much
 indisposed, that he was obliged to go to
 bed, where he continued very bad till next
 morning; then he was blooded to $\bar{3}x$.
 or $\bar{3}xij$. which after standing several 5.
 hours showed no inflammatory crust, as his
 wife informed me.

I was called, and found him labour- 6.
 ing under a very severe fever, with a
 strong full pulse. He complained of a violent
 pain of the head, an oppression at heart,
 pain of the throat, and difficulty of swal-
 lowing; his tongue was covered over with
 a thick white crust; his urine had deposited
 a copious transparent sediment like clear
 mucus. As he was bound in his belly, an
 injection was ordered, by the use of which
 he had some copious and easy stools. On
 enquiring, I found that he had sweated pro-
 fusely

fufely from the beginning, and had coughed fometimes, though but feldom.

Nov. 7. The fymptoms were much abated, which feemed to promife a happy exit to the difeafe, only the pulse varied, and was much depressed; he complained greatly of the oppreffion at heart being increafed, and a tenfeneff of his belly.

8. After great anxiety and raving thro' the whole day, at night he fell into a profufe fweat, which continued till next morning. About the middle of the night, when in the fweat, his wife, moved by his intreaties and threats, changed his fhirt while he fat by the fire: here he continued till he fainted, and then they carried him to bed.

In the morning I found him infenfible.
9. On being asked whether he felt the pain of the head or oppreffion at heart, he declared he was free from both, but complained greatly of want of reft, which he faid he had been deprived of ever fince the beginning of the fever. His urine and fœces efaped without his knowledge; his thirft was unquenchable; he raved about his bufinefs; his cough was dry; his tongue covered with a thick white cruft, of a livid colour

colour in the middle. His wife told me that when shifting him, she had observed his back and belly variegated like marble. On examining his breast, I found it had mostly disappeared, though the purple colour was still visible in several parts.

The seventh day of the fever, after having raved much through the preceding night, in the morning he fell into a copious and universal sweat, that continued equal for the greatest part of the day: this afforded a good omen for being freed from the severest symptoms by means of it: he fell asleep, and on waking his thirst was abated. Nov. 10.

In the morning, I found him in a sound sleep, but left him directly, flattering myself with the hopes that a crisis might have happened. 11. Returning again in the afternoon, I found him raving, and coughing; the purple colour had disappeared, and his whole breast was covered over with small petechiæ, which could only be seen when viewed transversely; his thirst was great, and he drank plentifully; the tongue was greatly crusted over, and black in the middle; his urine had a cloud in it, but no appearance of sediment.

Nov. 12. In the morning the keeper informed me, that he had raved excessively through the night, caught at the air with his hands, had had a starting of the tendons, and his extremities cold. In the condition as above described did I find him. A large blister was immediately applied to his shoulders, soon after which the heat returned to his extremities, and the skin was covered with a warm moisture; his eyes looked more lively; he had no great thirst, and slept little; a glister was injected, which he kept; he was sensible when he passed his water, which after standing some time became cloudy.

13. He continued easier through the whole day. In the morning I found
14. him stupid, sometimes raving, and without thirst; in the evening his skin was moist, and sufficiently warm; he had a starting of the tendons.

15. In the morning he was very cold; in the forenoon a blister was applied to the inside of each leg, from the calf down to the ankle; the heat returned soon after, and a warm moisture was felt on the skin. Thus he continued through the greatest part of the night till his breast was marbled
over

over as on the ninth, which appearance continued till his death the sixteenth of the month, and thirteenth of the disease, when he quietly expired.

It may here be observed, that though many injections were given, he never voided any thing by stool after the third day of the disease. The blackness on the tongue on the eighth day of the disease, indicated that a gangrene of the bowels either had happened, or soon would; it is not improbable that the bound belly was owing to this.

When long kept in an erect posture any time of the disease, he always fainted.

Although the copious sweats that happened the fifth day of the disease, afforded some hope of a crisis on the seventh; yet though he sweated profusely great part of that day, no marks of a crisis appeared in the urine; and though many of the symptoms were much abated after the sweat, they soon returned with great severity.

The cold admitted during the shifting on the fifth day of the disease, and the erect posture in which he was kept so long, might possibly do mischief.

I may safely conclude from many experiences, that profuse sweats in eruptive fevers, whether miliary, purple, or petechial, are neither critical nor salutary.

In the beginning of the fever, the patient complained much of a swelling and hardness of his belly.

His sweat was always foetid, his eyes sometimes dull and lifeless; and though he was often insensible, and raved exceedingly, yet he knew his wife, relations, and acquaintances to the last.

A little daughter of his, of eight years of age, was just recovering from the petechial fever, when he fell ill. The violent exercise in walking, and subsequent cold in church, might greatly contribute to bring the morbid particles into action, and produce the fatal symptoms as mentioned.

At the same time that he was under the fever, a little son had the measles, and a boy the chicken-pox: his wife, though constantly employed about both her daughter and him, the whole time of their fevers, yet continued free from any infection.

I shall now subjoin a couple of cases, where both the patients were of the same sex and age, seized the same day, and continued

tinued under the fever at the same time, yet the events are very different.

C A S E II.

A young lady about twenty years Dec. 15, of age, of a robust constitution, 1759. and generally very healthy, was seized with a fever under which she continued till the twenty-fourth, when I was called. On inquiring of the surgeon-apothecary who attended, I was informed that it was a nervous fever; that some red-spots had appeared, but were gone off. I found her in the following condition: She was raving greatly; her eyes were much inflamed; her urine deposited clear pellucid sediment like mucus; she had a starting of the tendons, great thirst; the pulse was languid and oppressed; she had early in life contracted a prejudice against medicines, in which she persisted till the last; so that she would take none. I ordered a large blister to be applied betwixt her shoulders.

Her eyes were much freed from the inflammation, but had a wild ^{25.} stare; she raved exceedingly; her pulse was full and slow, her breast oppressed; she was blooded

blooded directly to 3x. by which the oppression was somewhat relieved ; no vesicles had risen from the blister : towards night a gentle easy sweat came on, and continued through the night without any relief of the symptoms ; she raved greatly.

Dec. 26. In the morning I found her quite delirious, her looks full of rage and admiration ; she complained constantly with an angry tone ; her skin was cold, her pulse wavering : with a threatening voice she demanded another room, and at last obtained what she desired. After she had been some time in bed, the skin became warmer, the pulse turned quieter, and more equal ; a blister was applied to the inside of each leg below the calf ; soon after she fell asleep, which continued thro' the day, though not sound. About ten of the clock at night a sweat came on universally, which the friends looked on as a good omen.

27. In the morning I found her greatly worse : she was quite delirious, had a starting and pulling of the tendons ; her urine escaped involuntarily ; her skin was hot, dry, and parched ; her thirst great ; thro' the night, she raved exceedingly about house-

household-affairs, of which she had had the management in health.

Continued much in the same Dec. 28.
way.

The symptoms were more severe, the skin hotter and drier, the tendons^{29.} were convulsed; she hunted moats, often gathered and grasped the bed-cloaths, her eyes were much inflamed: a large blister was applied to the head; the symptoms rather increased till the 30th at seven o'clock in the morning, when she died. *Observandum quod tributum lunare licet parce, toto fere tempore febris solvebat: hoc vero à rigore symptomatum semper auctum. Continuo delirabat circa necessaria, neque dubito quin si medicamentis usa erat omnia saltem meliora fecissent.*

C A S E III.

M--- B---, a girl aged about Dec. 15, twenty, of a good and healthy^{1759.} constitution, was seized with a fever, under which she continued till the 21st, when the petechiæ appeared.^{21.}

She complained greatly of an oppression at heart, and raved through the night.^{22.}

Dec. 23. Her mother gave her a dose of rhubarb, from which she had four stools; after these she grew much worse, and I was called. I found her very hot, and the petechiæ had almost disappeared. I ordered her an infusion of snake-root and wild Valerian. This she used plentifully; and on the 24th, when I

24. visited her, the petechiæ had appeared again, and were very apparent, red, and numerous, even to the extremities of the fingers: on the legs and feet none were to be seen, but the breast was every where full of them; the fever was high, the raving great; her pulse was strong, hard, and slow. I ordered her to be bled to 3x. after this she was relieved for some time, but in the following night was delirious.

25. The fever still kept up. I found her under a dozing; on which a large blister was ordered, and afterwards applied to the shoulders; through the night the raving and starting of the tendons was so great, that it alarmed all about her.

26. On visiting her I found the fever *judged*, to use the language of Hippocrates; the blister had risen and run plentifully; the pulse was quieter; the skin moderately

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rately warm, was every where covered with moisture ; her sleep was sound ; and a sediment in the urine.

I found her in the same state, her tongue dry and blackish in the middle : as she had had no stool since the 23d, I ordered an injection, which was not given. Dec. 27.

I found her tongue rather worse, on which I again ordered the injection. 28.

Her mother informed me, that while the injection was preparing on the 28th, she had had an easy stool, and had continued easy in her belly ever since ; that she had sometimes raved through the night, and was very weak. I now find her entirely free from the fever ; and every day after this she gradually recovered, and soon after regained as good a state of health as formerly. 31.

C H A P. VIII.

Of the CURE of the PETECHIAL FEVER.

AS we are generally most successful when we attentively observe the method nature makes use of in procuring relief,

lief, and strictly pursue the same, so here the first indication of cure is, to expel the noxious matter.

The second is, to keep the circulation as equal and constant as we can, without counteracting the salutary efforts of nature, in bringing about the several crises already mentioned. By means of this we shall also prevent the fatal symptoms, which ought to be the constant study of the conscientious practitioner. But were I to mention every particular, it would lead me to repeat many things already observed when on Continual Fevers, and to observe several things which I shall reserve till I come to treat of Inflammatory Fevers.

When this truly formidable fever is epidemic, let us carefully observe, if, on its first attack, a breathing easy sweat happens the first, third, or fourth day. By encouraging this, and keeping the patient in a proper degree of warmth, he will soon sweat off the infection.

If on the contrary, the sweat is profuse, the heat great, the pulse strong, with oppression at heart, we may reasonably conclude that the fever will be of some continuance. In this case, bleeding plentifully
re-

relieves the patient, and prevents, or at least renders more mild many of the worst symptoms ; nor does it impede any of the crises, but rather promotes them, as I have learned from many repeated experiences. And here, once for all, let me observe, that whenever there is a strong, full, slow pulse, with the indication of inflammation in whatever part, venæsection is the surest and most sudden remedy ; nor need we hesitate to order this any time of the fever, if there are no particular circumstances that forbid it. We have reason to believe that by means of this, part of the offending matter is evacuated, as it seldom fails to give relief from the severity of the symptoms : it renders the evacuations critical, and salutary, which by excess might become dangerous : it rather promotes the eruption of the petechiæ than otherwise ; nor could I ever observe that it occasioned their retrocession.

But besides venæsection, inward medicines are required to keep up an easy discharge by the skin ; and although I have mentioned several medicines fit for this purpose before, yet from experience I can here recommend absorbents, nitre, diaphoretic

retic antimony, vegetable acids, saffron; these in ordinary cases; but when the weak state of the patient requires cordials, wine, snake-root, contrayer. wild valerian, &c. may be ordered, and seldom disappoint the judicious prescriber. When the patient is troubled with loathing or vomiting in the beginning of the fever, an easy emetic given will prove useful; and after its operation is over, in some circumstances a gentle laxative does great service; but beware of all purgatives after the eruption, and of every thing that may render the belly loose; for in such circumstances, I have known mischief from clysters incautiously injected.

To prescribe a regular course of medicines in so irregular a disease would be labour lost; so I shall mention some of the worst symptoms, with the medicines that are proper for giving relief.

Does the patient complain of an intolerable pain of the head, or want of rest, camphire claims the preference; though in some cases, castor, ass. fœtid. or even opium, may be joined to advantage. Does a diarrhœa threaten mischief, nitre properly given will mitigate, or remove it almost in every case.

Are the sweats profuse, we may restrain them by absorbents, antispasmodics, opiates, &c. for I never observed them critical. Is an hæmorrhage too profuse; if singlafs, gum arabic, jellies, &c. may be given; or, what, indeed, I found generally more efficacious, mineral acids.

When the belly is very bound, emollient and diluent medicines may be used inwardly, and emollient injections ordered.

In dozing, raving, starting of the tendons, retrocession of the petechiæ, blisters are remarkably efficacious, as they likewise are in coldness of the extremities: in several of these ailments, sinapisms, applied to the soles, have a very sudden and remarkable effect.

Salivation, which is sometimes critical, may be promoted by proper gargles, or emollient and diluent decoctions, taken plentifully.

I shall now conclude with observing, that when nature makes any effort towards those changes which are attended with danger, it is better to prevent their happening, than to remedy them after they are happened.

The several crises, many of which are in common with continual fevers, are indicated by particular appearances; for which see Continual Fevers.

The judicious and attentive physician will be able to perceive by these appearances when danger is threatened; and in such circumstances will exert himself in the most skilful manner to procure relief to the patient, and prevent danger: whereas, when the appearances are favourable, he will assist nature, encourage her efforts, and help to promote her salutary purposes.

Specifics can with no propriety be trusted in this disease; nor is there, perhaps, any fever in which more judgment is required to treat it with success. No particular method can be followed, so very various and different are the appearances, and so irregular is the course of the fever in several epidemic constitutions.

C H A P. IX.

Of the PLAGUE.

I COME now to the Plague, which has a nearer relation to fevers than any other kinds of diseases. It seems to be caused by the most noxious matter that can be communicated by the atmosphere: it is well known to be very infectious; and from the dreadful havock it makes, is called by some the “scourge of human kind.” As I never saw any labouring under the plague, I shall describe it in the concise manner from the best authors. It begins with a numbness of the head, a weight, great pain, sleepiness, stupidity, forgetfulness, restlessness, sometimes wakefulness, and great weakness; loathing of food, anxiety, a heart-burn and fainting, with a reaching and vomiting; a shuddering, a languid, slow, contracted, or frequent pulse, and fainting.

Lancisi has observed the following crises in that plague which he has described; a parotid swelling, with a thick sediment in the urine; a dysentery, sweats, nume-

ous pustules breaking out, a large hæmorrhage from the nose.

The most ordinary crisis is by tumours externally, on the third or fourth day, or between them; the sooner the better: such as occupy the glandular parts are called buboes; if salutary, they soon become soft by suppuration, and being opened give entire relief. Lancisi observed, that when the dysentery supervened, the disease proved fatal.

A worse kind is the carbuncle, or botch, which is often followed by a mortification of the parts, and frequently fatal.

C H A P. X.

Of the CURE of the PLAGUE.

WE may observe in this disease many things in common with Continual fevers, and several with the Eruptive. The crises, such as prove salutary, viz. a parotid swelling, sweats, copious hæmorrhages from the nose, pustules, buboes, and dysenteries, indicate the necessity of either evacuating the morbid matter, or of depositing it out of the course of the circulation.

culation. When this can be obtained, we may reckon on a sudden and sure relief: but let us hear practitioners. Frederic Hoffman recommends vomits: his words are, *Emetica cautè, & cum prudentia adhibita, divinam opem ferunt, si tempore et in principio pestis et contagiosorum morborum usurpentur, quod certa experientia nobis constat.* Op. 1. 204. For bleeding directly, we have the authority of Botticher, where he observes, *Quod in Copenhagen nullus eorum cui vena secta fuit post duodecim horas ab invasione morbi evaserat, multi autem evaserint quibus primis horis secta fuit.* Sydenham advises bleeding copiously, which, if early performed, may be done *ad animi deliquium.* I shall subjoin what Lancisi directs to be used in continual pestilential fevers. *Laxantia pulv. contrayerv. et pulv. ocul. lancror. ante tertium diem, clysteres, vesicantia, China, aquæ diaphoreticæ cucurbitæ scarificatæ, tum infimis artubus quam sub scapulis et juxta occiput ubi cerebrum comate delirioque obsidebatur aliquibus profuerunt et venæsectio jugularum.* Op. I. 197. On comparing the various accounts of this disease, as they are to be found in the several authors, from Thucydides to Dr.

Mead, we shall find so great a difference in the histories of the disease, that it is impossible to give any general method of cure, or even to determine with certainty and precision what a plague is.

The account I have given, is taken from some of the best modern authors, and includes the most essential and remarkable symptoms, as well as crises.

But should such a disease happen, I take it to be the duty of a conscientious physician to observe every thing carefully, and suit his method of cure to the salutary purposes of nature; by means of which he may, perhaps, have it in his power to preserve the lives of many.

I shall now proceed to treat of Inflammatory Fevers, where the cause is evidently an inflammation of some particular part: I shall endeavour to point out the manner of discovering and knowing each disease, and foreseeing the event, whether salutary or fatal.

I shall likewise subjoin a few observations with regard to the practice; and take notice of some of the most efficacious medicines in each disease.

The physician will be greatly assisted in forming a judgment of inflammatory fevers, by being well-acquainted with the particular structure and nature of the parts affected.

The several powers of the nerves, of the muscles, of the membranes, &c. &c. both with regard to their action, and sufferings, will assist him in forming a proper idea of the seat of the disease, the cause of the symptoms, and the effects of operations, medicines, and applications. Whatever observations have been made on human bodies casually suffering may be depended on; experiments on brutes are apt to lead us into errors. I am told by a physician of considerable eminence, that there is no feeling in the membranes and ligaments of the joints; and he supports his opinion by experiments made on brutes. Blinded by such authority, I put it down as a maxim. Soon after, I am called to a patient roaring aloud from the torture of the gout. I examine his joint, see it evidently inflamed, feel it hot, and when I touch it, he redoubles his complaints. Can I here believe that the joints have no feeling? Shall I endeavour to persuade the unhappy sufferer

that he is mistaken, when he declares that the pain is in the joint? Would not he curse me to my face, and call me a mad-man for adopting such a whim? Be cautious, brethren, how ye publish your fancies: in the world is an inexhaustible fund of ridicule; and mankind are now more disposed to trust to their own senses than confide in authority. A poor man, while he was cleaving a piece of wood, struck the adze into the joint of his knee; the synovia flowed out of the wound for some weeks, and a probe was easily introduced into the cavity of the joint, between the bones of the leg and thigh: he complained aloud night and day for several weeks, till the flux of the liquor from the joint was restrained, and the wound disposed to heal up. Whence this pain? say the curious. No sooner was the parts next the joint united, than he gave over to complain; the remaining part of the wound was gradually healed up, he recovered the use of his joint, and found it just as strong as before the accident: in this state has it continued for more than a dozen of years, without either weakness or complaint. On a comparison between the symptoms which result from
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the inflammations of such parts as are of different structures, the physician will be able to judge at once, how very different are the symptoms of a pleurisy from those of a peripneumony ; those that result from an inflammation of the stomach, when compared with such as happen on an inflammation of the liver. Many other instances might be given ; but they will best appear on a comparison of the essential symptoms of the several diseases which are to be treated of in the following book.

A
T R E A T I S E

ON

INFLAMMATORY and ACUTE FEVERS.

THE A. B. T.

THE A. B. T. THE A. B. T.

INTRODUCTION.

I Come now to treat of such fevers as accompany, or result from, the inflammation of particular parts. These are deservedly called Inflammatory, from the great heat that accompanies them; and Acute, from the time of their duration.

They either happen by themselves, and are called Original; or result from other diseases, and are called Symptomatic: in the last case, they are joined with some other ailment, which must be carefully attended to in forming a prognostic.

I shall endeavour to follow nearly the same method in treating of these, that I
have

INTRODUCTION.

have mostly followed in the preceding sheets. I begin with the phrenitis, or inflammation of the head, as it is commonly called.

A
T R E A T I S E
O N
INFLAMMATORY and ACUTE FEVERS.

C H A P. I.
Of the PHRENITIS.

THIS either happens without any disease having preceded it, or it is the consequence of some other disease. If the first, it is preceded by a giddiness, and is known by a great heat and pains inwardly in the head, redness of the eyes and face, disturbed sleep, raving, fierceness, grief, and other passions; a sudden forgetfulness, catching of motes, grasping with the hands, or picking of wool from the bed-cloaths; the breathing is seldom and great, the looks stern, the eyes prominent, and the nose moist.

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It is generally mortal, the third, fourth, or seventh day.

When severe, it often degenerates into madness, into a lethargy, or intire stupidity.

When tremblings happen, it is often fatal.

Good signs are, first, when it is relieved by sleep.

2. When it is mild, and intermits.
3. When it happens by fits, it is never mortal.
4. When varicose swellings appear, or hæmorrhoids flow easily.
5. A looseness.
6. A pain in the back or feet.
7. A violent cough.
8. Hæmorrhages
9. When it begins with laughing.
10. A copious sediment in the urine.
11. Universal sweats.
12. Pains in the belly.
13. A leucophlegmatia.

Bad signs are, a vomiting of greenish matter; frequent spitting, or indecently spitting in the faces of by-standers; crude urine; convulsions, which are fore-boded by a want of thirst, as also when the
pati-

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patients are silent, look astonished and frightened ; waving of the hands, and catching of motes ; when the eyes appear as if fullied with dust ; a chattering of the teeth ; a perpetual shifting of the symptoms ; a subsiding of ulcers ; raving about things needful ; when this disease happens in the small-pox.

It proves mortal, when it supervenes the following diseases :

1. An inflammation of the lungs.
2. An iliac passion.
3. From an inflammation and roughness of the throat.
4. From violent pains in different parts, particularly of the head.

C H A P. II.

Of the CURE of a PHRENSY.

AS this disease is often but of short continuance till it proves fatal, it is of much importance to inquire into the cause of that particular phrenitis that the physician is called to cure. The age, constitution, and circumstances of the patient, as well as the season, must be attended to ; as from these

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alone, can the proper indications of cure be taken, and a rational method of relief laid down, if we would practise with success ; for, whatever the numerous tribe of empirics may boast of their specifics, I can from experience assert, that so various are the causes of this disease, and so different the appearances even in the original phrenitis, that it is impossible to cure this disease by one particular method or medicine : and if this is the case in the original, how much more so must it be in the symptomatic, when, from its being joined with other diseases, a much greater variety must result. But I forbear to insist on particulars, as I propose only to take notice of the most general and useful observations, and add such directions as seem proper for the cure of the phrenitis, after having premised a few obvious appearances in inflammations, which may assist the reader in forming a proper judgment of the state of the parts affected in this, and other inflammatory fevers.

From very obvious appearances in the whites of the eyes, in the skin, &c. we may certainly conclude, that the blood, in an inflammation, gets into a set of vessels
where

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where it was not in a sound state. The cause of this may be either too great force from the circulation, or too little resistance in the vessels. The blood continuing in these vessels may be occasioned, first, by the size of the globules being too large for passing through the extremities of the vessels in which it is contained. Secondly, the propelling force may hinder it from returning to the orifices of the veins which answer to the sanguine arteries, while the counteracting power of the vessels in which it is lodged, constantly endeavours to effect this: I may here observe, that the cellular substance, in which these vessels are placed, being endowed with a power of contracting, by exerting of this will aid or hinder these effects, according to particular circumstances.

From what is above observed, the indications of cure in inflammations will be,

1. To diminish the force of the circulation.

2. To encrease the contracting power of the too-much distended vessels, that they may, by regaining their proper tone, drive back the blood to the orifices of the sanguine veins.

Or, 3. To diminish the size of the globules so, that they may pass into the serous veins, and so return to the course of the circulation.

4. To diminish any spasm, or contraction, whether of the vessels, cellular or membranous substance, which detains the blood, or impedes its progress in returning to the heart.

I shall now consider the favourable appearances, as they are severally related.

N^o 1. is a sure proof that the inflammation is small, and the spasms removed.

2 and 3 shew forth, that the disease is not fixed.

4 and 5 act by revulsion, and answer the first and second indications of cure.

6 by spasms and congestion in the parts mentioned have relieved the head.

7 occasions a free circulation, and promotes perspiration.

8 diminishes the force of the circulation, and consequently encreases the repelling force in the over-distended vessels.

9 indicates the seat of the inflammation, in which place it is seldom dangerous.

10 greatly diminishes the circulation, and is a certain proof that the spasms are re-

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remitted ; as we observe in acute fevers and other complaints.

11 diminish the force of the circulation, restore vigour to the vessels, dissolve the blood, and remove spasms.

12 acts as 6.

13 indicates the relaxed state of the solids, and dissolved state of the blood, both of which must relieve inflammations.

Thus having deviously wandered in the regions of theory, I resume my subject, and come to treat of the method of curing an original phrenitis.

To answer the first and second indications of cure, whether in the original or symptomatic phrenitis, venæsection is found by experience, and from reason, to be the most sudden and most sure method of relieving the patient ; that of the jugulars is preferred, on account of their vicinity to the seat of the disease, and the sudden revulsion they occasion : the venæ raninæ are sometimes opened with success, and the Egyptian method of scarifying the internal part of the nostrils has often been practised with instantaneous relief, according to Hoffman. Our accurate and judicious countryman Dr. Pringle recommends

mends six or seven leeches to be applied to the temples, and its success is warranted by experience. If the patients have been subject to the hæmorrhoidal flux, and this has been accidentally stopped, the applying leeches to the fundament gives great relief: in some particular cases, cupping, and scarifying the shoulders, is not only safe and efficacious, but claims the preference to other evacuations.

As to internal medicines, diluents and emollients thin the blood, and soften and relax the solids; and consequently, answer the third indication of cure.

To allay the heat and mitigate the fever, neutral salts, and the acid juices of many kinds of ripe fruits, are very efficacious: camphire, judiciously prescribed, has an excellent effect; to this opium may be joined in some cases with singular advantage to the sick.

When the complaint is accompanied with starting of the tendons, and convulsions of the muscles of the face, &c. musk often relieves the patient in a very sudden and surprising manner, as I have often experienced; cinnabar, in some cases, I have seen very efficacious.

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As assistants to nature, let us ever be attentive to her several efforts. Does she attempt to relieve the patient by evacuations from the primæ viæ, laxative medicines will prove safe and efficacious ; or clysters, opportunely injected, compleat the crisis.

Is her ordinary manner of relief by the pores of the skin, diaphoretics, cautiously given, bring on the salutary discharge, and restore the patient to health.

In such situations where an hæmorrhage is indicated, but prevented by some unlucky circumstance, venæsection may supply its place, or assist the efforts of nature in accomplishing her purpose.

Besides the above methods of cure, various applications have been used externally, and are warmly recommended by authors ; as vinegar by itself, with aromatics ; as also aromatics with an aqueous menstruum, or with spirits.

Hoffman used the following epithem with great success ; Acet. rosar. ʒij. spirit. rosar. ʒij. camphor. in eo solut. gr. x. nitr. pur. ʒij. ol. lig. Rh. gutt. xx. m. Such as the above I have often ordered, and it always relieved the head : yet soon after, in one patient, severe pains of the belly came

on, which he complained greatly of for several days. The lungs of new-killed animals, or other parts of their bodies, applied warm to the head, are safe, and generally serviceable in relieving the patients.

Blisters require great judgment in their application. In some cases I have seen them greatly relieve the patients; in other cases, I have known them encrease every bad symptom. And thus are we to reconcile Pringle and Hoffman, the first of whom recommends, and the other cautions against the use of them.

Bathing of the feet and hands in warm water, milk and water, or bran with water, is commonly of some use. Aromatic and softening plasters may likewise be applied to the soles.

Live pigeons, cut open, and applied directly to the soles, are believed by some to be very efficacious.

I now proceed to inflammations of the throat, of which there are a great variety, and some dreadful and fatal. I shall describe some of the most remarkable.

C H A P. III.

Of the S Q U I N A N C Y.

THE angina comes next in order: it is an inflammation of some of the parts of the throat, attended with an acute fever.

The parts affected may be known, and are distinguished in the following manner.

1. If the inflammation is in the wind-pipe, the sick complain of a swelling inwardly, and point to the head of the trachea arteria; there they tell you is heat and pain; the voice is sharp and sonorous, or hissing; inspiration causes a sharp pain; the breathing is small, frequent, and difficult, and the body kept upright: when the pulse is wavering, and the breast corded, death soon puts an end to the suffering.

2. When the larynx is inflamed, or the muscles or membranes affected, the above prevail, and the pain is greatly encreased on swallowing, speaking, or crying; the voice is sharp and shrill, and death soon ensues, after great oppression.

3. If the muscles that serve to raise the larynx, or os hyoides is the seat of the disease,

ease, then the breathing is free; but the first attempts to swallow are very painful.

4. When only the pharynx is inflamed to any considerable degree, it is easily discovered by looking into the mouth: the breathing in this case is easy, but swallowing is impossible; and whatever is attempted to be swallowed, returns by the nose, or falling into the wind-pipe occasions violent coughing; the life of the patient is here prolonged, though the disease often proves fatal.

When the glands are inflamed, they are easily felt.

Good signs are, when the swelling comes outward. This is a salutary appearance, and in such a case the disease can often be discussed, which is the best exit.

When the swelling appears outwardly, and feels soft, or when a softness is felt inwardly, both indicate a crisis to have happened by suppuration.

A tumor on the breast. BAGLIV.

A redness. HIPPOCRATES.

Red spots are of doubtful presage, some recovering, some dying. VAN SWIETEN.

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If the disease is severe, without any external or internal appearances, it is soon fatal ; for death happens the first, second, third, or fourth day. HIPPOCRATES.

Ballonius observes, that if a pain of the side arise, the pain about the neck and throat ceasing, it indicates the disease's being turned into an inflammation of the lungs, and either death, or a suppuration, ensues.

When the pain and difficulty of swallowing disappear, without proper signs of a crisis ; when the patient breathes erect, with starting of the breast, and noise, death follows ; or, if such recover, it is after great sufferings from severe symptoms.

When from a shifting of the morbid matter, a pain is felt under the cartilages of the ribs, this is fatal.

A pain in the left side of the head, froth in the mouth, a swollen tongue, when it is purple or black-coloured, coldness of the extremities, weight and oppression on the vitals, with a hard, convulsive, and intermitting pulse, are certain signs of death.

Each of the kinds described are evidently inflammatory, and most of them attended with a considerable degree of fever.

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The kind mentioned by Hippocrates, (see the fatal symptoms) and of which many instances have occurred to me in practice, is best known by the great complaints of the patient, for which there are no apparent grounds, no inflammation discovering itself either outwardly or inwardly; and in many cases the fever is scarcely perceptible; notwithstanding which, the event too plainly demonstrates, that the complaints are not without foundation, for death ensues. But from whence these unhappy forebodings, on which the patients constantly insist? for from the beginning they generally declare that they are dying.

On opening several of their bodies after death, the epiglottis and neighbouring parts were alone found slightly inflamed; nor was there any appearance found either in the wind-pipe, or lungs, to which I could reasonably attribute the death of the patients: the parts affected in the several anginas, as described N^o 1, 2, 3, and 4, were found entirely free from any inflammation.

But as I only propose treating of inflammatory fevers, I shall add no more as to
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the above, but proceed to consider the kinds I have described.

I must here observe, that inflammations may be carried off without any destruction of the parts affected, and that this is called *discussion*: when this happens, it is known by the abating of the fever, and removing of the symptoms. Or it may terminate in *suppuration*, where matter is lodged on the parts affected, and the skin and cellular substance is thereby destroyed: this happening in the angina, is discovered by a horror and shuddering seizing the patients; and after this they are commonly uneasy, restless, and anxious, till the abscess bursts, or is opened.

The *discussion* ought ever to be attempted; as it is safe and easy to the patient, and is a compleat cure. *Suppuration* should be prevented, as its happening is not always attended with relief; and even when it is, it is disagreeable to the patient and others. The first and second kind are dangerous when *suppuration* ensues, for the patients are oftentimes instantaneously choaked, on the matter's bursting inwardly.

Suppuration often ensues in the third and fourth kind without great danger; for af-

ter the abscess is formed, it can frequently be opened, and the matter discharged, either outwardly or inwardly, to the great, nay, often entire relief of the patient ; and tho' the quantity of matter be very considerable, it is surprising to find how sudden and compleat the cure, without any assistance from art.

There is no occasion to make mention of any other indications of cure ; those I have taken notice of when treating on the phrenitis, will suffice.

Provided the physician be timeously called, he can answer for the event in most cases ; but when the disease has continued for some days, it is quite the reverse. Thus after complaining exceedingly with a very high fever, I have known a patient instantly relieved : while the happy friends applauded the lucky change, he walked about without complaining. How ill-founded their hopes ! how deceitful his expectations of health ! he staggers, faints, and dies.

Such events as the above, and other fatal ones, are often occasioned by the negligence of relations in not calling the physician timeously to the assistance of the sick,

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sick, or from trusting conceited old women; or ignorant apothecaries; or, perhaps, the obstinacy of the sick, who despise both doctors and medicines, is the fatal cause.

As I have cured a great many under this disease, I shall take notice of some means of relief that I have ever found most successful, treating the subject only in a general manner, without descending to many particulars.

C H A P. IV.

Of the CURE of the SQUINANCY.

VEnæsection, no matter in what part it is performed, provided a sufficient quantity of blood be taken away, is a certain remedy in each of the kinds, when the inflammation is recent; but if this is delayed till the suppuration is brought on, it will in some cases prove hurtful, tho' in others it may be serviceable.

While the patient is able to swallow, a laxative potion should be given; manna, neutral salts, rhubarb, cream of tartar, tamarinds, senna, &c. are proper. The dose
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ought to be large, that the discharge from the primæ viæ may be considerable; for this I have ever found to mitigate the fever, and diminish the inflammation. When the patient cannot swallow, frequent injections will serve the same purpose.

Alterative medicines properly given internally are of singular service, particularly during the increase of the disease: of great efficacy are sp. minderer. nitre, saline mixtures, antispasmodics and diaphoretics. Linctus of ol. amygdal. dulc. recenter extract. et syr. de alth. vel papav. alb. frequently taken down to the stomach in small quantities, is of use.

Vomits are used by some physicians in this fever, and are believed to do good.

Various external applications may be used, and they are often attended with success: softening and gum plasters joined, and applied to the throat, have an excellent effect. Camphorated oil, anodyne balsam, may be ordered to good purpose. Dr. Pringle recommends volatile liniment, or oil with spirit of hartshorn, applied to the throat, and renewed every four or five hours. A great variety of fomentations and cata-

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cataplasms may be used: they ought to be composed of such materials as soften and relax the parts, promote perspiration, and mitigate the pain; such are melilot, emollient herbs, mothmullein, elder-flowers, white lilly roots, figs, &c. chamomile, saffron, oily and aromatic seeds.

Dr. Van Swieten recommends several hot acrid substances. In some circumstances, blistering the neck and shoulders may contribute to the recovery of the patient. In the first and second kinds, breathing in the steam of aromatics boiled a little with water and vinegar added, does service; it is likewise of some use in the other kinds.

In the third and fourth kind, gargles of figs, lemon-juice, nitre, and such like substances, are of great benefit when applied early in the disease. The pain is carried off by slowly swallowing down eight or ten drops of camphorated spirit of wine, with one grain of nitre, according to Hoffman.

Using a warm bath to the feet and legs occasions an useful revulsion, and much relieves the patient in some circumstances.

When the patients are ready to be choaked with the tumour, bronchotomy ought

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to be performed, as it gives them some chance for recovery.

The abovementioned means, when judiciously and opportunely used, will seldom fail of success, when the inflammation is an original complaint, and not joined with any other disease; but when it is joined to, or supervenes some other disease, the method of cure and medicines must be adapted to the particular condition of the patient.

I shall now proceed to inflammations of the thorax that are attended with a fever: and first of the pleurisy.

GENERAL OBSERVATIONS on the PLEURISY.

IT may be observed in general, that it is not so dangerous to young people as to the old.

That in cold weather, it is more dangerous than in warm or temperate.

That those who have been accustomed to violent exercise, or drinking of fomented liquors to excess, often fall victims to this disease.

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Women with child, if far advanced in pregnancy, as also those in child-bed, when seized with this disease, often suffer greatly; and without timely assistance few survive it.

When no other disease supervenes, the danger is not so great; but if it is not remedied in time, peripneumonies add to the danger, or phrensies happening prove fatal.

The several exits of a pleurisy are,

1. By resolution, which is the most desirable, as the patients soon recover their former state of health. This happening is known by relief from the symptoms.

2. By suppuration, after which the patient may recover. This is known by shuddering happening without any apparent cause.

3. By a gangrene. This is known by the pulse becoming languid, slow, and wavering, with a lividity, or blisters over the parts affected.

4. By a mortification, which is generally fatal. It is known by a great weakness, fainting, and cold sweats.

C H A P. V.

Of the PLEURISY.

THIS disease is so called from the membrane in which it is seated. It is sufficiently distinguished by the following symptoms ; a sharp and vehement pain of the side, which occasions a difficult breathing ; a hard, full, and slow pulse attended with a fever.

It commonly begins with great hunger, a coldness, shuddering, a weariness, weakness ; then a heat, which encreases along with the fever ; a thirst, loss of appetite ; and the difficulty of breathing in some cases is so great, as to threaten choaking.

As this disease is often changed into, or accompanied with an inflammation of the lungs, unless the inflammation be soon discussed ; I shall here join a short description, including the most essential symptoms of the true peripneumony, that by comparison they may be known and distinguished from one another.

Of the PERIPNEUMONY.

THE symptoms essential to this disease are, a cough, weight in the lungs, heat of the breath, and softness of the pulse : the fever is common to both ; but peculiar to this is a redness of the face.

I shall now proceed, as usual, to give the several signs in each disease, as they are found in Hippocrates and other observators, selecting only such as experience warrants. I must at the same time observe, that most of the observations are more applicable to the pleuripneumony than to the pleurisy, though attributed to the last.

Of the PLEURIPNEUMONY.

PLEURIPNEUMONY is, when both the pleura and lungs are inflamed at the same time. It is easy to discern when the inflammation of the lungs comes on in a pleurisy, by the change in the pulse ; the softness of the pulse being an essential symptom in the true inflammation of the

lungs, is directly opposite to that hardness of the pulse which is constantly observed in the pleurisy.

When the urine has a reddish sediment, it indicates a happy solution. HIPPOCRATES.

Hollerius asserts, that he has observed several pleurisies relieved by much thick black urine.

If the urine is thick before the fourth day, and after depositing a sediment is clear above it, this gives hopes of a happy solution by sweat. JUNCKER.

Copious sweat on the critical days, especially the seventh, proves salutary.

As does also a copious and free spitting on, or before, the fourth day. Van Swieten observed in a woman five months gone with child, a copious spitting come on the second day; and she was well by the fourth. He has also observed a spitting of bloody tough matter in the beginning of the disease, with great relief to the patient. He is at a loss to account for the manner in which the pus gets into the lungs, though he is certain as to the fact of its being evacuated by them.

I shall only observe, that the yellow matter spit up from the lungs in such cases, though

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though it has the appearance, is really not pus.

If after bleeding, the pain seizes the shoulder-bones, or collar-bones, or reaches to the back, most are relieved against the sixth day.

If a pain happens about the great toes of both feet the fourth day, they are happily relieved, though they have never been goutish.

Hæmorrhages of the nose the fourth day are also salutary. HOFFM.

Betwixt the first and fifth day they preserve the patients, though bleeding was neglected in the proper time. TRILLER.

As also the hæmorrhoidal flux. *Id.*

Van Swieten asserts, that this is never a complete solution without other evacuations. A looseness remarkably relieves the patient after the fourth day. VAN SWIET.

A diarrhœa in the course of the disease, when the symptoms are mitigated, is salutary, and sooner restores the patient to health. TRILLER.

When the belly swells and falls by turns in the decline of the pleurisy, the patients are generally healed about the tenth day. BAGLIVI.

Abscesses behind the ears give relief universally. BAGLIVI.

Or abscesses at the ancles, or arm-pits, or in other parts of the body, if filled with good pus. TRILLER.

Green coloured urine, with a black sediment, or like bran, is mortal. HIPPOCRATES.

Bloody urine, with a dark and various sediment, is for the most part fatal in fourteen days. *Id.*

When the urine, through the course of the disease, deposits no sediment, it indicates the disease to be of long continuance. TRILLER.

Profuse sweats not on the critical days is also a very bad sign.

If the spitting is suppressed the fifth day, and the difficulty of breathing remains, death happens on the seventh day. VAN SWIET.

Death is surely approaching when there is a rattling in the throat, the eyes fullied, a weak pulse, a difficult and small expectoration, a looseness, with a very foetid stool, and a great oppression at heart.

When the pains shift from the sides to the lower part of the belly, it indicates

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no good ; for after twelve hours, they again seize the sides with greater violence.

VAN SWIET.

The same author informs us, that on the thirteenth day of the disease, he observed an acute pain in the left side, without swelling or redness ; the urine was thin ; a raving came on, and death followed.

Pain from bilious spitting, if it disappears without reason, the patient becomes mad. HIPPOCRATES.

Hæmorrhages. When after the fifth day, black thick blood, although in a considerable quantity, flows from the nose, and gives no relief, it is a fatal sign ; as also when it passes by stool. TRILLER.

When on letting of blood it appears thin, with any buff on the top. O'CONNELL.

From experience, I can here assert, that the honest Irishman is mistaken.

A diarrhæa in the beginning of the disease is a very dangerous sign, though not always a mortal one. TRILLER.

A swelling below the cartilages. Those who, in the beginning, have neglected bleeding, and other remedies, tho' they
feel

feel no pains, only one or both hypochondres are swelled and raised; these suddenly, none expecting it, by a shifting of the morbid matter, within a few days, nay hours, are choaked. TRILLER.

Abcesses. When these happen in the substance of the lungs, if the vomica breaks, and the matter is freely spit up for forty days, the patient is freed from danger: if otherwise, they at last die of a decay. HIPPOCRATES.

GENERAL OBSERVATIONS on the CURE of the PLEURIPNEUMONY.

AN inflammation of the lungs coming on in a pleurisy, seems to be a salutary effort of nature to carry off the disease. This is greatly confirmed, by considering attentively the several good signs; and certain it is, that if the patient is neglected, and no timely assistance given in the pleurisy, a peripneumony is generally joined to the pleurisy; in which the physician must consider that he is treating an inflammation of the lungs and membranes of the thorax at the same time. But I shall

shall first give such directions as seem necessary in curing the pleurisy; then take notice of what may prove useful in the pleuripneumony; and last of all treat of the true peripneumony.

C H A P. VI.

Of the CURE of the PLEURISY.

THE directions here given, are only meant to take place in the true pleurisy, or inflammation of the membrane that lines the internal part of the thorax: the sides are commonly the seat of the disease.

In imitation of nature, we must endeavour to bring about a resolution, which not only prevents other diseases from being superadded, but likewise gives entire relief to the patient.

As soon as ever the disease is formed, let the patient be bled to as great a quantity as his strength can bear. If at any time afterwards the hardness of the pulse and fever returns, let venæsection be repeated; and thus proceed, while the patient

patient is free from the indications of suppuration. Nor ought the menstrual discharge, or the flowing of the lochia, to intimidate us; as doctor Van Swieten practised in both with success.

This practice of bleeding, Hippocrates wisely insists on in his Treatise *De Structura Hominis*; and justly observes, that if the patient has been under the disease for one, two, or three days, he must be relieved by venæsection before the disease oppresses him, and his strength be gone. The necessity of the above practice is proved from experience; as a suppuration often happens the fifth day, if not sooner.

Immediately after bleeding, apply a large blister over the part affected. It is with pleasure the physician sees the good effects of the abovementioned evacuations; and in many cases there is no need of other remedies. Blistering the part, I first learned in 1741 from Dr. Osterdyke, clinical professor in Leyden, who told us, that he had always used this practice, and never without success, if timely applied; though Dr. Boerhaave, his contemporary, never would approve of it. After more than sixteen years experience,
I can

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I can truly recommend the above: but this is already done by Dr. Mead in his excellent Medical Cautions, and Dr. Pringle in his valuable Observations. But as some obstinate patients will not bear to be blistered, the parts affected may be fomented with emollients, resolvents, and anodynes; or cataplasms of the same may be applied. When the weather is very cold, lest the patient should suffer by the parts being exposed during the fomenting, the decoction may be put into a bladder, and applied warm to the side, as warm as the patient can bear. Camphorated oil, or softening ointment, may be often applied: but that I may finish at once all I have to recommend of external applications, rubbing with a flesh-brush, cupping either over the parts affected, or in the neighbouring parts, may prove useful. Bathing the feet with warm milk and water, &c. by revulsion, much relieves the patient.

Nor ought we to confide in every case in the above, without the assistance of inward medicines. Laxative potions of manna, rhubarb, neutral salts, &c. by evacuations from the primæ viæ, greatly diminish

diminish the inflammation, nay in some cases entirely remove it.

Cooling medicines, antispasmodics, diaphoretics, when opportunely used, have very sensible and good effects.

But should a suppuration happen, which event is known in the manner already related, we must endeavour either to evacuate the matter by the operation of the empyema, or when the abscess points outwardly, by opening it with a lancet; for it may prove dangerous to delay till it opens naturally, though I have known this often happen. In whatever manner the opening is made, we must take care that it does not close; as its proving a drain to the matter, is necessary to the health of the patient; and if it closes too soon, the disease often proves fatal to the patient by a vomica or phthisis supervening. In some cases a seton put into the side, will serve the same purpose, and often restores health to the sick.

When a gangrene happens, the bark may be tried. Inward mortifications are generally fatal.

C H A P. VII.

Of the CURE of the PLEURIPNEUMONY.

WHEN the oppression at heart, or weight of the lungs, is great, the face red, and the pulse soft, with great heat of the skin, this indicates bleeding, whenever it happens, unless some crisis approaches ; and even then, if the symptoms are severe, venæsection is proper ; it relieves the patient, without preventing the crisis. These returning any time of the disease, will ever prove indications for bleeding ; which evacuation the sick generally bear well, and are thereby greatly relieved.

Breathing in the fumes of hot vinegar and camphire is of use.

If the belly is bound, proper injections may be ordered till after the fourth day, and then we may prescribe a laxative potion.

Suppose when the physician is called, he observes a copious free spitting, and that this came on before the fourth day, it will then be proper to order pectoral decoctions,

decoctions, infusions, linctuses, or pectoral medicines in other forms; and these, with a spare diet and proper regimen, will somewhat assist nature, who, in such circumstances, seldom fails of a cure.

If the fever is pretty high, there may be added to the above pectorals, spirit. minderer. and such other medicines as are already recommended for mitigating a fever: and here let me observe, that there is no class of medicines whatsoever, on the effects of which the physician can more surely reckon, than on pectorals.

Expectoration is often suppressed, to the great danger of the sick, and thereby many severe symptoms are brought on. In such cases, gum ammoniac, squills, honey, oil of sweet almonds new drawn, lintseed, spermaceti, figs, althæa root, volatile salts, kermes mineral, are of great efficacy for restoring it.

When there is much pain, syrup of poppies, joined to some of the above, promotes their virtues: but beware of using opiates in old people; for I have frequently observed mischief from the use of them in the aged.

When

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When a thin acrid matter is expectorated in young people, opiates thicken it, eases the cough, and promotes perspiration, to the great relief of the patients.

Several means are also used externally for promoting expectoration and relieving the oppression, and are generally successful; such as blisters applied to the neck, back, or extremities, and particularly to the internal parts of the calves of the legs and ancles; warm baths to the feet and legs, sinapisms, or live pigeons cut open by the back, and applied to the soles, are believed to give great relief, when a delirium comes on.

When the pain of the side has continued violent, in spite of many applications, cupping and scarifying over the parts pained has given much relief, in a number of patients.

When the fever is violent, the cough great, and the disease attended with spasms, musk, cinnabar, camphire, and nitre, may be used to advantage, and seldom fail to answer our expectations.

But let us here, as well as in other diseases, consider, that by promoting the purposes

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poses of nature, we best consult the patient's safety.

Does nature attempt a crisis by sweat, let us encourage her, by keeping the patients in a proper degree of heat, and ordering diluting liquors, with such diaphoretics as are suited to the circumstances. By using these warm, we may keep up the sweat till a change in the pulse and abatement of the symptoms convince us that the crisis is completed.

With regard to hæmorrhages, I may observe, that those of the nose are the most common in this disease; and in what manner these can be promoted, when the efforts of nature evidently tend this way, I have already shewn: but when hæmorrhages from other parts, such as the hæmorrhoidal vessels, &c. are habitual, nature persists in her ordinary course in bringing about a crisis. Whenever these are approaching, or while they are performing, both mind and body ought to be kept quiet; nor ought any active medicine to be administered, lest disturbances should be raised, and nature made to deviate from her salutary course. As it is of great importance

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portance to bring on the crisis in due time, let us make use of every method to solicit such hæmorrhages as are known to prove salutary before the fifth day; for their happening after that is rather detrimental.

If none of the crises mentioned have happened before the fifth day, and appearances tend towards a diarrhœa, this may be promoted by a laxative potion, and kept up by diluents and emollients, till the patient is thereby relieved.

If inflammations happen behind the ears, or any of the parts mentioned, the suppuration ought to be promoted by proper applications, as the suppuration and discharge of the pus proves salutary and critical.

It may be here observed, that the tumours abovementioned do not always resemble inflammatory swellings, as in some cases they are neither red, hot, nor painful, but are from their first appearance soft, without discolouring of the skin, and increase gradually in size. When opened, they generally contain good pus. When the opening is too long delayed, in some cases they disappear, and a hectic follows.

Query, Is it not probable that the pus is formed elsewhere ; and after translation is deposited here ?

C H A P. VIII.

Of the PERIPNEUMONY.

THOUGH this disease is frequently joined with a pleurisy, yet it often happens by itself.

When severe, it is easily known by the following symptoms: great weight and oppression of the breast ; weakness ; a small, soft, and unequal pulse ; a frequent, small, erect, hot breathing, often interrupted by a short cough ; an uncommon redness of the face, eyes, lips, tongue, and throat: these increasing, a raving ensues, suffocation and death follows.

Marcianus was of opinion, that when the tongue was wholly white and rough, the lungs were totally inflamed ; when only one half, the lobe of the lungs that corresponds.

The following may be considered as good signs:

When a spitting of bloody matter happens the fourth day, or sooner : the easier it

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it is, the greater is the hope of recovery ; the more difficult, the less.

A bilious diarrhœa, or copious flow of urine.

A copious sweat the fifth and ninth day ; in some, the eleventh, or even the fourteenth day.

A crisis sometimes happens partly by spitting, partly by sweat. Its having happened is known by the pulse being regular, slow, and soft, peaceful sleep, abatement of the symptoms, and increase of strength.

The above evacuations are generally effectual in discussing the inflammation, and promise a happy recovery ; but when these do not happen in due order, if there are neither evacuations nor relief, but the symptoms continue with a raving, a wave-like and soft pulse, these indicate a suppuration to ensue. This happening is known by frequent shuddering without a manifest cause, the pain becoming less, and the difficulty of breathing continuing.

A gangrene being brought on is shewn by the severity of the symptoms ; such as great and sudden weakness, first manifest in the pulse, then a coldness of the extremities,

mities, a spitting of thin, ash-coloured, livid, or black foetid matter; hence a sudden death.

Baglivi has observed, that when the cough and other symptoms are increased on the fifth day, the more severe they are, the surer is death the seventh day.

A fatal appearance is, when the urine is thick in the beginning, but becomes thin after the fourth day. HIPPOCRATES.

When it brings on a madness.

When, from a squinancy, it kills in seven days, or ends in a decay. CONNELL.

Purulent stools.

A great sneezing preceding or following.

If a bilious spitting, with pus, begins after the sixth day.

If the spitting is pure blood, frothy, and does not relieve the pain.

If it is livid, green, or black.

C H A P. IX.

Of the CURE of the PERIPNEUMONY.

WE may observe, that the true peripneumony (for the false is entirely a different disease) is an inflammation of the lungs, which ought by all means to be suddenly relieved; for when the patient is neglected, other diseases supervene; all of them dangerous, several of them fatal.

We ought to enquire diligently into the cause of the disease, and constitution of the patient; if he has formerly been seized with the disease, and how it was relieved; if he has ever been subject to catarrhs or defluxions, to coughs, pains of the breast, or rheumatic complaints. But as this is descending too much to particulars I desist, and proceed to the cure, in general, of the inflammation; as the other diseases that follow from this, more properly belong to chronical ailments.

Here, as well as in other inflammatory fevers, venæsection claims the precedence,

as nothing relieves the patient so suddenly or surely, that is, on the supposition that the physician is called at the beginning of the disease; for if, when the doctor is called, the patient is spitting freely, and relieved from the severity of the symptoms, there is no occasion for bleeding; pectoral decoctions, or infusions drank plentifully, will generally compleat the cure.

Or if the patient has sweated copiously, and this has been followed by abatement of the symptoms, insisting on the same method, with a proper regimen, and spare diet, will gradually restore him to health.

When a diarrhœa is the means nature makes use of for relieving the patient, diluents and emollients aid her efforts; but if the diarrhœa be too severe, rhubarb and nitre will mitigate it.

When copious urine with much sediment shew forth the salutary purposes of nature, diluents and emollients are the proper medicines. If a suppuration is happened, and the matter cannot be discharged in the manner already mentioned on the peripneumony, nor brought
up

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up by spitting, a real phthisis is the consequence, of which I shall treat afterwards.

When there is reason to believe that the matter is absorbed into the course of the circulation, we must endeavour to determine it either, first, to the skin; second, to the guts; third, to the kidneys; or, fourth, get it deposite on the extremities.

Diaphoretics inwardly, such as vinegar whey, mustard whey, saline mixtures, &c. with fomentations, or frictions, will answer the first; emollients and laxatives the second; diuretics, with diluents, the third; and softening ointments, or emollient fomentations, may, in some cases, bring about the wished-for event, as in the fourth; but the above will succeed best when there is a natural tendency that particular way; for unless there is, seldom will any of the above be effectual.

When after the inflammation is gone off, there remains the symptoms of one or more schirrhuses, proper alteratives will carry them off; but the use of these must be continued for some time. Mercury is the most efficacious. Sea-water is well known to remove glandular swellings; and
common

common hemlock, as lately published by the ingenious Dr. Stork, is found very efficacious in discharging schirrhous: but its efficacy is not so great or extensive as the doctor believed.

This gentleman deserves the highest encomiums, who, from a real concern for the welfare of mankind, has given such proofs of a truly commendable public spirit, in publishing a medicine, by concealing of which he might have amassed treasures from private practice. The above was written soon after Dr. Stork's first publication.

Adhesions of the lungs to the pleura, though no method can restore them to their former sound state, yet whatever inconvenience attends it, may be helped by proper applications. In what manner these are brought about, I shall have occasion to mention afterwards.

I now proceed to the inflammation of the diaphragm, or paraphrenitis.

C H A P. X.

Of the PARAPHRENITIS.

I Shall here observe, that this disease has its seat either in the whole diaphragm, or in some part of it, or in the mediastinum.

The parts pained generally indicate the seat of the disease; and the severity of the symptoms the degree of inflammation.

It is alledged by some, that this disease is often mistaken by the moderns, though it is accurately described by the ancients.

How far this may be the case with those who practise without the least attention, and may justly be called chance-medley men, I shall not determine: but certain it is, that this disease has its essential symptoms, by which it may be distinguished from every other disease.

I have already observed, that the part pained shews the seat of the disease. The ancients mentioned the læsion of the breathing: but I cannot help observing, that the manner of the breathing sufficiently ascertains the disease, as the abdo-

men is kept immoveable, while the breathing is performed by the ribs.

When both the diaphragm and mediastinum are inflamed, the pain in breathing is intolerable. When the pericardium is inflamed, faintings are the consequence, and the pulse is invariable; though it is generally hard and full in the inflammation of most membranous parts.

I now come to the disease, which may be defined a fever, caused by an inflammation of the membranous part of the diaphragm, or of the membranes that divide the breast, or of both.

It is known by an acute and continual fever; an intolerable pain of the parts affected, which is greatly increased on inspiration, by coughing, sneezing, a full stomach; a loathing, vomiting, compression of the belly; such as happens when going to stool, or on making water; hence the breathing is erect, small, quick, and suffocating, performed by the thorax alone: there is a continual raving, a drawing of the hypochondres, a laughing, convulsions, madness, and gangrene. Death either ensues, or sometimes a supuration protracts the term of life. If
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the last, the matter falling into the belly, occasions a wasting of the bowels, a miserable consumption, and death.

C H A P. XI.

Of the CURE of the PARAPHRENITIS.

RESOLUTION is the only exit by which we can restore the patient to health ; that of suppuration proving generally fatal, from the impossibility of giving vent to the matter.

As early in the disease as we can, the patient ought to be bled to such a quantity as relieves the symptoms ; and this may be repeated as often as the severity of the symptoms requires, or the strength of the patient can bear, before the fifth day ; nor ought we to rest satisfied with this, but give inwardly such antiphlogistic medicines as are most efficacious to bring about a discussion of the inflammation : such are cinnabar, camphire, and nitre, with several others already mentioned.

Externally the same methods may be tried that are mentioned on the pleurisy ;
only

only it may be here taken notice of, that external applications are not followed by such relief as the pleurisy.

Large emollient antiphlogistic injections thrown up warm, are believed to contribute much to removing of the inflammation: certain it is, that they are generally followed by some relief from the severity of the symptoms. When it ends in suppuration, although the patients recover, it is commonly after long sufferings; so that the consideration of this more properly belongs to chronical diseases, to which I shall refer it.

C H A P. XII.

Of the HEPATITIS.

I Come now to the inflammation of the membranes of the liver, which is truly an acute disease. That of the substance of the liver is of long duration, so does not belong to the class of which I am now treating. I propose, God willing, to take notice of it when I treat of chronical diseases: in the mean time, I shall offer a few observations before I describe the hepatitis.

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It is of great importance to the physician, to consider the particular state of the patient at the time he was seized; and in order to this, it will be necessary to inquire into every deviation from health, that has preceded for some considerable time. By means of this, he will be enabled to judge, whether or not, along with the medicines and applications for an inflammatory fever, he ought to add such others, as may prove beneficial for removing a bad habit of body; or perhaps relieve some chronical complaint, which either brought on the fever, or accompanies it.

As this fever is either simple, as when from an inflammation of the membranes; or complex, as when from an inflammation of both the membranes, and substance of the liver; I shall describe each of these in the usual manner.

The simple begins with a shivering and vomiting, and is known by a violent pain felt in the right side, under the false ribs. This pain is greatly increased when the patient lies on the right side. There is always an oppression about the heart, and sometimes a hiccough. When the membranes are only inflamed, a hard full pulse is

is joined to the above. This fever, when no assistance is given, we find to be often relieved naturally, by means of the following crises.

1. By a large hæmorrhage from the right nostril.

2. Copious, acrid, thick, and reddish urine, with a white sediment, continuing for some time before the fourth day.

3. A profuse sweat on the fifth, seventh, or eleventh day.

4. A pain in the spleen before any signs of suppuration.

When none of the crises happen timely; when the fever persists, and the pain remains; if the mouth is dry, the urine thin and clear, this shews that an abscess is formed; and if the matter burst into the cavity of the abdomen, or gets into the course of the circulation, a hectic gradually wastes the body, the strength daily diminishes, with loss of appetite, and death is the consequence.

The complex kind may be known, when the inflammation is in the substance of the liver, as well as the membranes; because to the symptoms already mentioned, are added, a yellowish colour
of

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of the face, somewhat resembling wax; the urine is bilious; the white of the eye tinged with yellow; and the pulse, though full, is soft. In this, the most natural and frequent crisis is, when a looseness with bilious stools, mixed with a little blood, comes on before the fourth day, and relieves the patient. Here nature seems to bring about a crisis by means of the liver, as she does in the pleurisy by the medium of the lungs; in this case, perhaps, more easily accounted for than in the other, and frequently to be observed in both.

This crisis seems to be proper to the complex Hepatitis; yet I do not doubt but that often some of those mentioned under N^o 1, 2, 3, and 4, take place in this, as well as in the simple, and prove salutary: this might be proved in a variety of cases, which I omit for brevity's sake.

Suppuration may here also take place, as well as in the simple, or partial inflammations of the liver ensue; but as these more properly belong to chronical diseases, I refer them to that class, and proceed to the cure of the fever.

C H A P. XIII.

Of the CURE of the HEPATITIS.

I May here observe, that the severity of the symptoms and degree of heat indicate the state of the inflammation.

If the physician is called before any appearances of suppuration, venæsection is necessary, and by diminishing the fever may prevent suppuration. The earlier it is performed, the more good is to be expected from it; nor need we hesitate a moment to order it to be repeated, whenever the pulse is full and the fever high, whether in the simple or complex hepatitis.

If we observe in the disease any tendency towards a particular crisis, let us endeavour to promote it; but if we are timeously called, we shall in most cases have it in our power to discuss the inflammation, even without waiting for any of the crises.

I have already recommended bleeding: and let me add briefly, that the internal medicines already taken notice of in the other inflammatory fevers, will here prove useful, if they are properly adapted to the

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situation and particular condition of the patient.

From external applications, whether fomentations, ointments, plasters, or others, we find considerable relief afforded to the patients; probably from the easy admission of the particles, on their being applied so near the seat of the disease, or parts affected.

Dr Pringle recommends a blister applied over the part pained; nor do I doubt of its success, though I own I never used it.

When the hepatitis is of the complex kind, diluents, deobstruents, and antiphlogistic medicines, will help to promote the crisis No. 5, and the use of them continued afterwards will carry off any remains of the disease. Laxatives, as manna, rhubarb, tartar, its cream, with various other preparations, and neutral salts, may, if opportunely administered, bring it about in a very salutary manner.

The juices of the lactescentia amara, and the whey from the milk of animals fed on grass in the spring, is of singular use.

As the above will be sufficient to remove the fever, I shall neither mention suppuration,

ration, nor its consequences ; but proceed to inflammations of the stomach, and account of the fever that attends them.

C H A P. XIV.

Of the INFLAMMATION of the STOMACH.

IT is sufficiently distinguished by a great inward heat ; an intolerable anxiety ; a heavy pain, as if stretching the vitals ; a sharp stinging pain in the stomach ; great thirst, watching, restlessness, and tossing ; coldness of the extremities ; a reaching ; a painful vomiting on swallowing any thing, more especially liquids ; an uneasy hiccough, with a continual fever ; the pulse is generally weak, depressed, and frequent, but sometimes varies.

Good signs are, a timely mitigation of the symptoms, and abatement of the fever.

The following symptoms are certain presages of death : a perpetual tossing, vomiting of drink, a convulsive hiccough, a fainting, a dismal look, and intermitting pulse ; a raving, with convulsions of the limbs.

C H A P. XV.

OF CURING the INFLAMMATION of the
STOMACH.

IN performing of this, let the physician, as quickly as possible, make use of every method of relief; as the patients, after severe sufferings, often fall victims to this direful disease, which may be regarded as the ordinary punishment of intemperance in eating and drinking, as it not seldom proceeds from the excessive use of high-seasoned victuals, or of fermented and spirituous liquors; but of this enough.

In the beginning, bleed frequently and plentifully, while the dangerous symptoms continue; but let it be done with caution, and a particular regard be paid to the strength of the patients, lest we exceed, and thereby unnecessarily weaken them.

Inward medicines of great efficacy are, neutral salts, saline mixtures, absorbents, antispasmodics; the best of which, perhaps, are opiates. From syrup of poppies, joined with saline mixtures, or some of the above-mentioned classes of medicines, I have often

observed great relief. And here I cannot help recommending mint as a medicine of great efficacy, whether the distilled water, or infusion with boiling water; for whatever horror the very positive chymists may have conceived against the distilled water from the oil it contains, in recollecting numerous experiences, I do not find these opinions of theirs supported by a single instance of any bad effect it ever produced. In some cases, vegetable acids and oxymels may prove very useful.

As the sick have often an excessive drought, cooling emulsions or decoctions may be given for ordinary drink; fermented liquors, though called for by the patients, are hurtful.

Food, if the patients are able to take any, ought to be of easy digestion, and given in small quantities at a time.

Injections of emollients and antiphlogistics, with some gently stimulating additions, are necessary, as the belly is commonly obstinately bound; let these be frequently administered, as the use of them is for the most part followed by some ease.

Fomentations of the same, with mint added, and crude sal ammoniac, when the
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decoction is taken from the fire, are of considerable use in discussing the inflammation.

Ointments with camphire, oil of mint, opium, or its preparations, are of considerable efficacy, not only in mitigating the pain, but likewise in abating the fever.

Cataplasms of aromatics, &c. may be ordered ; such as that of the pharm. pau- per. or others, suiting them to the condition of the patient.

Various plasters, properly suited, may also be applied with success.

I have heard of blisters having been applied with success; but I must here observe with regard to these, that if they are early applied in the inflammation, they bid fair for giving relief; but after the disease has continued for some days, I should expect mischief from the use of them.

C H A P. XVI.

Of INFLAMMATIONS of the GUTS.

THEY are easily known by the acute and continual fever that attends them, great thirst, a hard pulse, a burning heat, flame-coloured urine, and sudden weakness ;

ness; and then the pulse becomes soft and quick.

If the inflammation is in the ilæum, it is denominated from it, and is known by the pain occupying the part where this gut is naturally situated in the abdomen: if in the colon, it is called a colic pain, and is known from the situation of that gut.

If in the rectum, the part pained also distinguishes it, though it may be taken for the inward hæmorrhoids by the inattentive. This last is generally relieved by an easy dysentery, with bloody and bilious stools.

If the abovementioned inflammations persist for three days without any abatement of the symptoms, and then if in place of the heat, pain, &c. there succeeds an universal shivering without a manifest cause, and a pain with a sense of weight follows in the parts affected; it indicates an abscess formed, which generally breaks in fourteen days into the cavity of the belly, or into that of the guts. If the first, the consequence will be as formerly made mention of. If the second is the case, a dysentery, with a discharge of pus by stool, will confirm the judgment of the physician;

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cian ; but if the symptoms are violent, and the pain suddenly remits without signs of resolution ; if the pulse be weak and intermitting, or a cold sweat, and stinking, green, or black stools happen, death soon ensues.

But when there is none of the above, and a numbness, weight, and distension of the parts is sensibly felt, it indicates a schirrus to have happened : from this is often produced iliac passions, a twisting of the guts, a dry dysentery, convulsions, hiccough, vomiting, constant pain, fever, leanness, wasting, and death.

C H A P. XVII.

OF CURING INFLAMMATIONS of the GUTS.

THAT of the ileum is most to be feared, though that of the colon is likewise attended with much danger, if not timeously remedied. Phlebotomy frequently repeated with judgment is generally a sure means of relief ; but to this ought to be added a plentiful use of diluent, emollient, and antiphlogistic medicines.

I have often seen antispasmodics, and particularly opiates, remarkably successful in removing this disease.

If the belly continues so much bound up that nothing passes, laxatives may be tried; and if no relief is procured, purgatives may be ordered. Various are the successes in such cases, as have been made mention of by authors, from swallowing balls of lead: large quantities of quick-silver, even to pounds, cold water, or oil copiously taken down, have also performed their cures.

I have seen an excellent effect from decoction of althea-root, with syrup of white poppies. Cold water applied outwardly has also done service, if we credit authors.

Injections of emollient and cooling decoctions should be frequently used to empty the primæ viæ, and afford an easy passage to the hardened fœces, or flatulencies, both of which, in some cases, are very troublesome to the patient.

Externally, fomentations may be frequently applied to the belly. Blisters early applied bid fair for success. Living animals cut open and applied directly over the parts affected,

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affected, are often followed by great ease to the patients ; as are likewise semicupia, or half baths used tolerably warm.

While the fever or pain remains, we ought to persist in the above, or even till the patient has been some days free from every complaint.

When the rectum is the seat of the disease, the crisis may be brought about by proper injections.

Opening the belly, and putting matters to rights in intus-susceptions, volvuli, &c. has also been tried with success ; but when the relief is uncertain, who would prescribe so barbarous a cure ?

To consider the several consequences of inflammations of the intestines, with their proper remedies, belongs to chronical diseases, where I shall take notice of each particularly.

I now proceed to inflammations of one or both kidneys, as they are commonly accompanied with a fever.

C H A P. XVIII.

Of the NEPHRITIC FEVER.

IT is well known to practitioners, that this disease is more severe in the young than in the old.

Piso has observed, that it generally seizes the left kidney, and in very few patients the right.

I have seen many cases when the right kidney was evidently the seat of the disease.

The Nephritis is well known by the great, sharp, and burning heat in the small of the back, where the kidneys are placed; from the continual fever that accompanies it; the small quantity of urine that is passed in general, and the little that is made at one time, its red and flame colour, or when the fever is great by its watery colour; by a numbness of the neighbouring leg; a pain in the groin and testicle of the same side; a pain in the ileum; a vomiting of bile, and continual belching.

1. The patients are relieved by dissection.

2. By

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2. By a plentiful discharge of red thick urine before the seventh day, or, at longest, by the fourteenth: the urine is sometimes of a colour resembling weak coffee, when the crisis is complete.

3. By a copious hæmorrhoidal flux in the beginning of the disease.

When the disease is severe, and continues beyond the seventh day, an abscess is to be feared. When this happens, it is known by the sudden ceasing of the pain, and a change into a pulsation sensibly felt in the part affected, as also by a shivering, often returning, having preceded it: a weight and numbness of the parts indicate its formation to be complete.

It is followed by a beating, a heat, a stretching in the part, with a burning heat in the shoulder and arm-pit of the side affected.

When it bursts by fœtid and purulent urine, hence the kidney is often wasted. If it ends in a schirrhous, a palsy and incurable lameness of the leg in the same side, is the consequence.

If a gangrene is formed, this is known by a sudden ceasing of the pain without a cause, a cold sweat, weak and intermitting pulse,

pulse, no urine ; or if any passes, it is black and stinking : these, with a sudden weakness, indicate the approach of death.

C H A P. XIX.

Of CURING the NEPHRITIC FEVER.

IN this disease we ought carefully to investigate the causes, as these, found out, will afford proper indications of cure.

The method of curing other inflammatory fevers by venæsection, diluents and emollients, fomentations, injections, &c. as formerly mentioned, may be here followed with success.

Let no time be lost, lest suppuration ensue, which often follows, if a discussion is not obtained early in the disease.

With regard to injections, it may be observed, that they are of great efficacy in relieving the patients, and occasioning an useful discharge by stool, which they seldom are able to bring about in inflammations of the guts.

Laxatives of manna, rhubarb, neutral salts, are here of great efficacy ; and nitre opportunely prescribed, will seldom fail of
success

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success in mitigating the fever, removing the pain, and making the urine pass freely.

Opiates may be prescribed when the pain is violent : in some cases, oil of sweet almonds new drawn, with syrup of althea root, certainly relieves the patient.

Honey is in many cases an excellent medicine.

Soap and natural balsams, when the fever is small, are both safe and useful.

Turpentine clysters have relieved many ; if the pain is great, opiates may be added to the injection.

I have often seen soap plaster applied to the small of the back over the kidneys, have a remarkable good effect.

The above medicines, with a proper method, will in most cases relieve the patients from the fever, and prevent the unhappy consequences, as they are already mentioned.

I come now to that fever which supervenes inflammation of the bladder.

C H A P. XX.

Of the INFLAMMATION of the BLADDER.

THIS is known by a sharp pain and sense of heat below the ossa pubis, with a fever, a constant desire of going to stool, and continual inclination to make water.

It is removed, according to Hippocrates, by a purulent urine, that has a light white sediment. I may here take notice, that there is commonly no pus in the urine; it has only a resemblance to it.

But if the pain is not diminished by such urine, nor the bladder soft, and the fever continues, the patient is even in danger in the beginning of the disease.

When the bladder is hard and painful, it is to be feared, as it is often pernicious.

Most destructive are these with a continual fever, if the patients are costive, or when what is passed by stool is very hard and compact. HIPPOCRATES.

An abscess, gangrene, or schirrhous may follow from the above, as in other fevers ;
and

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and they may be known in the same manner as formerly mentioned.

Inflammations likewise happen in the womb, mesentery, &c. but as these are really chronical, I refer them to that class.

C H A P. XXI.

Of the CURE of INFLAMMATIONS of the BLADDER.

THE same manner, medicines, and applications, that have been recommended in the nephritis, are of great efficacy in this ; and the fomentations applied to the perinæum and over the ossa pubis, will greatly contribute to the recovery of the patient.

Some GENERAL OBSERVATIONS on the FEVERS in the Preceding Classes.

IN the descriptions which I have given of the several fevers, the reader ought to consider each of them, in particular, as the disease appearing by itself, free from

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any other ailment, and performing its course in the same manner : he should likewise take notice, that every fever is delineated in a certain degree in which the symptoms are conspicuous, and consequently the event can be foreseen with most ease, and predicted with the greatest certainty. It may be of use also to him to consider, that fevers have very different appearances.

I can truly assert from frequent observations, that in some cases nothing appears but the essential symptoms; and these in so small a degree, that they may be easily mistaken by the inattentive; that, on the contrary, in other cases, the essential symptoms appear with such a degree of violence, and bring along with them such disturbances, as may confound the timorous observer, or mislead his judgment. I shall only give a single instance in the ephemera. I have seen the shivering scarcely perceptible, and the sweat no other than a warm moisture on the skin: in other cases I have seen trembling, shaking, chattering of the teeth, and even violent rigors, and these followed by such profuse sweats, that it was seen standing in large drops on the top of the bed-cloaths, after having passed through
several

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several blankets. As sensible a difference in the degrees of the symptoms in the other fevers, I have also observed ; but I forbear to give any account of these, leaving it to the ingenious calculators, who may exercise themselves for months together in all the pomp of algebra, where, though great variety take place, every calculation may be just, and every event possible.

Having now warned the reader of the almost infinite variety that takes place in fevers, with regard to their course, I shall offer a few particulars as to the changes they undergo into one another, and into other diseases, their combinations, remissions, relapses, &c. I have already given several observations on the day-fever, which I shall not resume ; only permit me here to take notice, that when this fever changes into inflammations, and these are not properly discussed, there remain obstructions, which afterwards cause numerous chronical diseases ; and from the various changes that the obstructed parts undergo, arise schirrhuses, suppurations, ulcerations, gangrenes, and sometimes mortifications.

The continual fever, besides its changing into inflammatory fevers of different kinds,

as has been already taken notice of, sometimes changes into a slow fever, or into intermittents. When it changes into a quartan, it is a good omen, as the event is almost always salutary. During its course, an inflammatory fever may happen, and both continue for some time: here then is a double fever, to which the practitioner must adapt his method of cure.

The ardent fever still persists in its course, notwithstanding inflammatory fevers or a hectic supervene. In practice, we meet with many relapses of patients in this fever, all of which keep invariably the essential symptoms of the ardent fever.

I have several times seen a putrid fever supervene during a hectic, and the patients thereby entirely relieved from the hectic; but when the putrid fever did not prove critical, but returned often, the hectic soon proved fatal. I have known an intermittent with regular returns every fifth day.

In a phthifical hectic I have observed an intermittent: the paroxysms were not so regular as in the above; it continued for some months, and the patient died, after having been entirely emaciated.

I might

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I might add many instances of other changes in fevers, and a variety of combinations: but I propose only to give useful hints to the reader, which in his practice he may improve on occasionally.

We often meet with remissions of the several fevers: these are uncertain and various, and are to be regarded as irregularities, sometimes not without danger; and whenever they happen, it always renders our presages more uncertain, or the art of predicting more difficult.

I proceed to agues. The quotidian is the most liable to change into other diseases, of any of the intermittents. When it changes into a hectic, the exacerbations are most commonly in the morning or forenoon. The quotidian in some cases induces a wasting of the body, and several chronical diseases take their rise from the bad habit of body that it brings on; particularly many diseases which proceed from ailments of the bowels of the abdomen, or lower belly.

The tertian may change into a continual fever, or into inflammatory fevers: dysenteries and fatal weakneses are often the consequences of the double tertian.

The quartan sometimes changes into a quotidian, though it is in general the most regular of intermittents : chronical diseases, as jaundice, dropfies, &c. sometimes supervene, ordinarily in the aged.

The course of the several agues is often irregular ; the usual deviations are into semiquotidians, semitertians, semiquartans ; that is, they double their paroxysms : but if they are once formed, and the type of the original fever was ascertained, we are to look on these as the primary disease disguised ; only let us ever keep in mind, that the farther they deviate from their type, the greater the danger of their changing into other diseases, or of their being followed by troublesome complaints. Yet I have seen a quotidian, after having doubled its paroxysms ; gradually diminish its symptoms till health ensued. I now proceed to Eruptive Fevers.

I may observe of the slow fever, that when it changes into a miliary eruption or regular intermittent, these are critical and salutary : on the contrary, when it changes into a petechial fever, inflammations, dysentery, &c. these are often fatal.

As to the miliary, petechial, and pesti-

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lential fevers, they seldom, if ever, change into other fevers; sometimes in the two last inflammations happen.

I come now to inflammatory fevers, where I shall observe, that one or more of these often occur in the first class of fevers, run their course along with the fever to which they are joined, and prove the cause of the patient's death, without having been observed. The numerous abscesses that have been found in the dead bodies of those who have died of continual fevers, are certain proofs of this.

Inflammatory fevers rarely happen in the second class of fevers; sometimes in the third.

Two or more inflammatory fevers are often joined together; and in some cases, there may be an universal inflammation.

A peripneumony and phrenitis is not uncommon; and great is the danger when they appear at the same time.

A pleuripneumony we frequently meet with.

I have several times seen an inflammation of the lungs and squinancy at the same time. An inflammation of the stomach, with that of the intestines, often occurs.

Were I to make mention of the various combinations that I have observed in practice, it would prove tedious; so I now come to consider epidemic constitutions, with which I shall conclude.

Every disease that occurs in a particular season, and prevails for some months, I shall call an Epidemical Disease, whether it seizes a great many, or only a few. In this sense Hippocrates seems to have taken it; and in this sense shall I make use of it. Dr. Sydenham, indeed, has given it a different signification. He asserts, “ that
“ whatever disease does most mischief a-
“ bout the autumnal equinox, is to be
“ considered as the epidemic disease of the
“ ensuing year.”

Before I proceed to consider Dr. Sydenham's account of Epidemics, I shall first consult the oracle of physicians, the great Hippocrates, who has observed so attentively, that scarce any valuable knowledge in the course of diseases has escaped him. I propose only to select a few observations, mostly on fevers, from the three sections that are prefixed to his Seven Books of Epidemics, in which sections are included
many

many epidemical constitutions : I shall endeavour to give his meaning, without pretending to the character of an accurate translator.

From HIPPOCRATES.

IN the first constitution, he observes, that some ardent fevers appeared ; they were without danger, and vanished insensibly.

Decays or wastings seem to have been the prevailing disease during this constitution : these were accompanied with fevers, that had no total intermission, and whose exacerbations resembled semitertians. These appear to me to have been no other than the putrid fevers that we often observe in wastings of the body, as their history sufficiently proves. See HIPPOCRATES. Some of them were judged about the twentieth day, several about the fortieth, and many about the eightieth.

In the second constitution, many chronic diseases prevailed ; but I only narrate the fevers. These were epidemic in autumn and winter ; they were for the most part continual fevers, with a
few

few ardent fevers, in which the symptoms were easy, and the crises in seventeen days; they were attended with no phrensy, neither were any of them fatal.

The tertians were more numerous and severe; they had commonly four regular paroxysms, and were completely judged the seventh paroxysm; nor did any relapse.

Quartans appeared regular at the beginning, and other fevers and diseases changed into quartans; and these were of long continuance.

Quotidians, whether such as were of the day or of the night, or irregular ones, were tedious, both to such as walked about, and such as were confined.

In continual fevers, the symptoms were increased in the manner of tertians; they became violent, continued long, and were accompanied with great pain: an increase of the symptoms always happened on the day on which we judge of the disease, and the patient turned worse.

Ardent fevers, in a subsequent account of a different season, were completely judged by a copious hæmorrhage from the nose. Such as had had no hæmorrhage, were seized with a rigor when they ought to have been judged:

judged: these afterwards had rigors and sweats. In some, a jaundice appeared the sixth day; and these were relieved by copious urine, a diarrhœa, or hæmorrhage.

Heraclides was judged the twentieth day, after having undergone all the above. In old people, a jaundice, diarrhœa, or dysentery, supervened. Some after an hæmorrhage were seized with a dysentery. The menses appearing were critical. Abortion happened to all the pregnant women who were seized with the fever.

Such ardent fevers as proved fatal, are accurately described; but I shall not here insert the description, as the symptoms are to be found in the preceding treatise.

A phrenitis often happened in these ardent fevers; and in such patients the fever was generally judged the eleventh day, in some the twentieth. When the phrenitis appeared on the third or fourth day, and was not severe, the fever was at the height on the seventh day.

Young people and adults suffered most, and several died. Those were mostly preserved to whom the following evacuations happened.

1. Easy hæmorrhages from the nose.

2. Co-

2. Copious urine with much sediment.
3. A bilious diarrhœa.
4. A dysentery.

Some had all of them ; and though these suffered greatly, yet they were preserved.

The above evacuations were also observed in women and virgins ; and to them if any one of the above happened properly, or if their courses appeared, all were saved.

Involuntary weeping presaged an hæmorrhage from the nose, if not joined with deadly symptoms.

In some, painful tumours about the ears did not remove the fever, nor did they suppurate : such patients were generally relieved by a bilious diarrhœa, or dysentery. That fevers are judged on different days, Hippocrates gives the following instances. Two brothers were seized the same hour. The eldest was judged the sixth day ; the youngest the seventh. Both relapsed the same hour, after an intermission of five days : both had a complete crisis on the seventeenth day.

Some were judged on the seventh day ; had an intermission of seven days ; and relapsing, were judged on the third day.

Some

Some judged on the fifth day, intermitted seven days; a relapse happened, and the fever continued for three days; an intermission of one day followed, and relapsing, a crisis in one day more.

Some fevers were judged in six days; returned for three days; intermitted one day; and returning, continued one day.

Some were judged in six days; intermitted seven days; and after relapsing, were judged on the fourth day.

None recovered in this constitution without relapses; but after having undergone these, and recovering, none were again seized with the fever.

Many, during this constitution, died on the sixth day. Such as had tubercles about the ears were judged the twentieth day; no suppuration ensued, and the disease was carried off by urine: when the tubercles suppurated, many died. Such as were judged on the seventh day, intermitted nine days; and after relapsing, were judged on the fourth day.

Some, when they were judged on the seventh, intermitted six days, and were judged on the seventh day.

About

About the winter solstice, and even to the equinox, ardent fevers and phrensies prevailed, and many died. The time of judging the diseases differed. Many were judged the beginning of the fifth day; the intermission was for four days; and after the relapse, the crisis happened on the fifth day; in all, fourteen days: such happened to many boys and girls, and likewise to some older people.

In some, the fever was judged the eleventh day; they relapsed on the fourteenth, and were completely judged on the twentieth. When the sick were very bad, with a rigor on the twentieth, these were judged the fortieth day.

Many, from the beginning of the constitution, had rigors about the crisis: such of these as relapsed, had the crisis accompanied with rigors.

Few had rigors in the spring, many in the summer, more still in the autumn, and most of all in winter. Hæmorrhages ceased.

Some fevers are continual; some appear in the day, and intermit in the night; others, just the reverse.

Intermittents are, semitertians, tertians, quartans. In some, the returns of the paroxysm

roxyfm are on the fifth day ; in others, on the seventh day ; and in others, on the ninth day. Nocturnal fevers are not very deadly, but of long continuance. Diurnal are still longer : some end in decays. Those that return on the seventh or ninth day are not fatal, but long ; those that return every fifth day are worst of all, they precede decay ; and coming on in decays, they kill the patients.

Great variety happens as to the manner and course of both continual fevers, and intermittents.

In some, a continual fever is violent from the beginning, and the severity of the symptoms daily increase : about the crisis, or along with this, it much diminishes. In others, it begins easily, but increases and grows worse every day, till about the crisis, or along with it, numbers of bad symptoms appear. In some, beginning gently it increases, and becomes violent : when it comes to the height and continues some time, it grows milder as the crisis approaches, or about the crisis. Such fevers as have an increase of the symptoms on the equal days, are likewise judged on the equal days ; but
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when the increase is on the unequal days, the crisis is also on the unequal days.

The equal days on which the crises happen are the fourth, sixth, eighth, tenth, fourteenth, twenty-eighth, thirtieth, fortieth, eightieth, and hundredth. The unequal days on which crises most ordinarily happen, according to Hippocrates, are already taken notice of. See Chap. II. on Crises.

Such crises as happen not on the critical days forebode relapses, and danger.

In fine, irregular fevers, and quartans, and such as return every fifth day and weekly, and those that happen every ninth day, in how many paroxysms they are judged, is to be considered.

The honest author leaves the above undecided, as he could not determine them from experience.

From the above observations, several of the cases that follow (for many of them are unworthy of Hippocrates), and the other genuine works of this excellent author, I may safely conclude, that he was well acquainted with the first and second class of fevers, in all their variety of appearance.

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pearances ; and that these fevers, which were observed so long ago in Greece, were no other in kind than what we meet with at present in our practice in Britain.

As to the third class of fevers, we meet with nothing of them in these sections, except in one place, where he mentions small eruptions, which were no suitable evacuations for the fevers, and that soon disappeared.

In these sections nothing on inflammatory fevers, or the fourth class, occurs : the reason of this I shall make mention of on another occasion.

I shall now endeavour in the concise manner to lay before the reader what Dr. Sydenham has observed on Epidemics.

From Dr. SYDENHAM.

IN these, besides the epidemic disease, there are others that intervene : those he calls Sporadics, or Intercurrents. He admires the variety that appears in the epidemic disease, not of one season, but of different years, when they are compared together ; so dissimilar has he found them.

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He asserts that some inflammatory fevers, as pleurifies, squinancies, are caused by the manifest qualities of the seasons, such as cold : and some epidemics, according to him, are very regular ; others so irregular, that they can be reduced to no type. A particular disease in the same constitution is often various and dissimilar in the beginning, state, and decline.

He divides epidemics into vernal and autumnal ; and though they arise at other times of the year, they ought to be reduced to whichever of these seasons is nearest.

Spring epidemics begin sometimes in January, come to a height about the equinox, and decline to the summer solstice : few happen later. Measles and autumnal tertians are of this number ; and though they appear so late as February, yet they vanish by the summer solstice. Some other diseases arose in the spring, became more frequent daily, and arrived at their state about the autumnal equinox ; after which they gradually diminished, till they were put to flight by the winter's cold : such were the plague and the small-pox, when they were epidemic.

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The cholera morbus was only epidemic for the month of August; other diseases arose at the same time, and continued to the winter, as fluxes, tertians, and quartan fevers: those generally lose the name and nature of epidemics in two months.

Continual fevers he denominates from the supposed change that happens in the blood, or some evident symptom: thus he calls them putrid, malignant, petechial. Besides fevers, there are other diseases prevail, as the plague, small-pox, fluxes.

Autumnal intermittents, when they appeared so early as July, wore the mask of a continual fever till the end of autumn, when they assumed the type of tertians, quartans, &c.

When many diseases prevail at the same time, some one generally gets the ascendant, and while it encreases the others diminish; and, on the reverse, when they increase it diminishes. Whatever disease rages and is most fatal about the autumnal equinox, imparts its name to the constitution of the whole year: other cotemporary diseases partake of the nature of this. He gives for instance the small-pox, and asserts, that the fevers which happened

while these were epidemic, greatly resembled the variolous fever, both in their course, and by the copious salivation that came on. He likewise gives for instance the dysentery, during which the fevers by aphthæ and otherwise much resembled it; nay, he concludes that the flux was no other than the fever acting on the intestines: this vanished on the approach of winter, when the inferior epidemics that accompanied it increased, and got the ascendant till the ensuing spring, which broke their force and destroyed their name.

He gives the history of the epidemics from 1661 to 1676, from which I shall select his observations on the course of diseases, without taking the least notice of commotions, ebullitions, fermentations, despumations, &c. all of which are introduced without necessity, and applied improperly.

In the beginning of July 1661, a tertian of a bad kind appeared, and in August became very general, many entire families being seized with it; this proved fatal to many. Towards winter it sensibly decreased, so that but few were under it in October. In it the paroxysms were severe,
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the tongue black and dry : in the interval the patients were not free from the fever, there was a great loss of strength and appetite, a proneness in the fever to become double, and the disease more fatal than usual.

In such old people as were of a bad habit of body, or those who had been weakened by venæsection or other evacuations, it continued for two months.

Quartans, though rare, accompanied this fever ; but on the approach of winter, none were seized.

A continual fever, with a vomiting, dryness of the skin in the extremities, thirst, blackness of the tongue, and profuse sweats, were observed in the end of the fever. That this fever belonged to autumnal intermittents, Dr. Sydenham concludes from its disappearing as the year advanced.

The same continual fever appeared periodically, and persisted till 1665, during which many intermittents were observed ; though after this they rarely happened.

In 1662 quartans became epidemic. They decreased in the autumn ; whence continual fevers got the ascendant, and continued to rage till the spring, at which time

the vernal intermittents appeared, and continued till May, when they abated. The small-pox prevailed from this till autumn, and then gave way to the fevers, as already mentioned. In this manner did diseases proceed during this constitution.

He gives the following description of the continual fever. He prefers it, because most regular. In it the patients were very sick, and vomited; their tongues were black and dry; there was a sudden loss of strength, and dryness of the extremities; the urine was either thick or thin, both of which he regards as crude; in the decline a diarrhœa coming on rendered the disease more obstinate, and longer: when left to itself, the fever seldom exceeded fourteen or twenty-one days; a crisis then happened by a sweat, or rather warm moisture of the skin; it was evident in the urine.

A phrenitis sometimes supervened; it was often accompanied with a cough thro' the whole of its course.

Hæmorrhages of the nose happened, and a hiccough, both of which the doctor attributes to hot medicines having been given: the diarrhœa he asserts was not critical.

The continual fever of 1667, 1668, 1669, which Sydenham calls variolous, is evidently the petechial fever, as will appear on considering the symptoms and history of the disease.

The dysenteric fever, from 1669 to 1672, seems to have been no other than the flow fever.

In the continual fever of 1673, 1674, 1675, the crisis happened the fourteenth day ; in the severest cases after the twentieth : a coma was the worst symptom : such as were seized with it were judged on the twenty-eighth or thirtieth day. Several had a crisis betwixt the third and fourth day ; some were relieved by a dysentery, others by a diarrhœa. It is not improbable that this was an ardent fever.

Of intermittents from 1661 to 1664. Vernal agues appear in February ; autumnal in August ; some appeared earlier, others later. In both seasons, when either begin early, they commonly become very general against the ordinary time.

Spring intermittents were either quotidian or tertians ; they were seldom of long continuance, and always salutary : such as had

been weakened by evacuations or otherways, fell into a raving, which gradually left them as their strength returned.

Autumnal tertians were more dangerous than those of the spring: quartans were still more dangerous and obstinate than these. Old people were often carried off in the cold fit. When the sick were only on the borders of old age, the ague frequently continued till the return of the time in which they had been seized: it varied its type, and produced in several, scurvies, schirrhous's in the belly, and drop-sies. In young people it often continued till spring. Children, after having been harrassed with it for six months, recovered perfectly.

Such as have once had a quartan, you may predict, on their being seized with it a second time, that it will be only for a few paroxysms. In autumnal intermittents the surest sign of recovery, in young people, is the swelling about the spleen; and swelling of the legs, in old people, indicates recovery.

Rickets seldom happen, unless when agues are epidemic. Inflammations of the tonsils, with hoarseness, and a dismal look,
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are certain prefages of death in agues, and other fevers.

The above are the most remarkable observations on Epidemics to be met with in the works of Dr. Sydenham ; on which I shall observe, that the doctor has included under the general title of Continual Fevers, all the first and third class of fevers, except the pestilential, which he has described by itself ; that if he had studied the works of Hippocrates he would have been better acquainted with the course of diseases, and would have easily distinguished them ; nor would he have been at a loss in knowing them on their first appearance in any epidemic : but little anxious about this, he seems to have been solicitous in finding out proper means of relieving the several symptoms.

A practitioner who believes that there is only one kind of fever, and who has formed his judgment of that fever from what he has observed in continual fevers, how much must he be confounded, when he meets with petechial, or ardent, or putrid fevers, or slow nervous fevers. Each of those are essentially different, and require a particular method of cure, and
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medicines peculiarly adapted to their several circumstances.

I hope the reader will excuse my thus making mention of an obvious fault in Dr. Sydenham ; I mean want of accuracy in distinguishing diseases. Few are so happy as to possess judgment to such a degree as to be above erring ; and every one versed in this author's works, must allow his abilities as a practitioner. What diligence and care has he shewn in his practice ! With how much candour and honesty has he related his mistakes as well as successes ! In practice his merit is still acknowledged, notwithstanding later improvements. But this is wandering from my design.

On agues he is more knowing, and many of his observations are new and useful.

Intermittents, in Sydenham, are evidently the same diseases with those described by the father of medicine, and many of their observations are exactly alike ; nor is this to be wondered at ; both were taken from nature. The Grecian has observed greater variety, and his descriptions are more accurate and extensive. The Englishman had practice still in view ; and with regard to this, many of his ob-
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servations are truly ingenious, and of the greatest utility.

Inflammatory fevers Dr. Sydenham observed with care. He does not consider them as epidemics, but calls them Inter-currents. Most of them have been denominated from the parts affected, and have kept their names from the earliest accounts in medicine to the present time; such as phrenitis, peripneumony, &c. There is no great danger of mistaking these. The two authors which have been made mention of furnished the above observations: I had recourse to them. As both are well known to be originals, I shall join to them a third of considerable reputation as an accurate and judicious observer: and as the age in which he lived, and the country where he practised, was different from both in the preceding authors, I shall subjoin his observations, which were made on some epidemic fevers nearer our own time. The person I mean is Lancisi, physician to pope Clement the Eleventh. The first observations were made in 1695 at Rome, and are as follow.

From the middle of May 1695, tertians appeared gradually, and in June were only
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among the common people. They were at first mild, unless when the patient had been bled; afterwards they became more universal; many of them had the worst appearances of tertians. Some other diseases, not indeed so numerous, were continual fevers of a pestilential nature. The first attacked chiefly poor people who lived meanly, and had obstructions in the bowels. It was a simple tertian, seldom double, always intermitted. On the fifth day it changed into a continual fever, and often destroyed the patient betwixt the seventh and eleventh day. Few got to the fourteenth day, unless such as were seized with a dysentery, or chronic fever, which harassed the patient through the autumn.

In pestilential tertians, the face was yellowish in men, women, and young people promiscuously; then a loss of appetite, with a sense of weight in the head: this was followed by a great rigor; with a vomiting not only of phlegm and variegated bile, but also of small worms; then a heat and thirst. Frequently the fever after two paroxysms with copious sweat so remitted, that the sick believed themselves freed from every ailment; and on the second
and

and fourth day they not only arose, but went abroad. In the mean time the urine was thick, of a saffron colour, and the fever returned on the fifth day with a rigor, great oppression at heart, and such tossing as plainly proved it to be a dangerous continual fever. In short, the tongue was dry and dark-coloured; a raving came on; there was no complaint of thirst; the pulse varied, was often small and unequal; the joints were cold, and sometimes convulsed; on the skin appeared livid pimples; the look was dismal; frequent faintings; the abdomen was tumid and tense, and pained before the ravings came on; and often after the sixth day there were bilious and stinking stools, not seldom bloody; worms in numbers passed by stool; they were mostly dead: in fine, parotids appeared, with an oppressive sleep, cold sweat, and thin urine; and on the seventh and ninth day, seldom on the eleventh, the sick died suffocated before any remedy was found out.

Continual pestilential fevers were seldom, and seized such citizens as lived at a distance from the ditches: such fared better, and had a livelier colour when in health.

health. These fevers began with a slight shivering, but great and heavy pain of the head, want of appetite, bitter taste of the mouth, and a less propensity to vomit than in the tertian; then the heat grew great, the pains of the head increased, the fever though continual had exacerbations in the forenoon, the pulse was rather great than small, red small petechiæ appeared on the skin, but soon after became livid. Matters turned worse the fourth day; with incoherent discourse and dosing, first startings came on, and then evident convulsions, with a dry tongue and red face; the urine was sometimes thick, sometimes thin; large hæmorrhages from the nose happened to many without relief; a bilious diarrhœa with some worms, fewer indeed than in the tertian: in others, about the seventh day parotids appearing, with increased dosing, many died apoplectic the ninth or eleventh day, with universal and profuse cold sweats.

Some few were preserved by copious thick urine, or by the disease changing into a dysentery, or quartan. After a cure was found out, many were restored to health. In the second constitution, 1705,
tertians

tertians were either double or single ; about the seventh day they often changed into continual fevers, which hazarded the lives of the sick ; the patients sometimes became cold and stiff about the third and fourth paroxysm ; and the fever changed into lipyria, continual or malignant fevers, in which were rigors, great heat, tossing, fainting, immoderate thirst, dryness of the tongue, watching, raving, giddiness, dozing, and apoplexies, or convulsions ; hæmorrhages from the nose and sweat proved critical in some.

In others, red spots broke out over the body, and sometimes relieved the patients, and sometimes they grew worse. After these, to such as had continued long under the disease, abscesses externally, or on the lower extremities, proved critical. Parotids happened to many ; but they did not prove critical : many relapsed, and some of these died. This fever was over against the end of the month of November.

In 1709 the fevers about Ferentum were malignant, and the returns accompanied with rigors, horrors, and coldness of the joints. In the beginning they were either single or double tertians, but soon disco-

vered their malignancy by severe symptoms: the looks were stern, and the colour yellower than in the jaundice; the pulse was small, quick, and unequal; pains of the head sorely afflicted the patients; founding in the ears, thirst, loathing of food, vomiting of worms, heart-burn, and fainting; weakness, obstinate watching, oppression at heart, raving, convulsions, dosing; the tongue was dry, rough, and black, or covered with a viscid slime; purple or livid eruptions appeared on the skin; in some, parotids; in others, exostoses, or gangrenes; the patients died the seventh day or the eleventh; seldom did they live till the fourteenth day. Those who recovered were relieved by no crisis; and obstructions of the viscera, cachexies, and quartans of long continuance followed. Painful parotids were fatal, as also lethargies and dysenteries.

The above are the most remarkable observations to be found in Lancisi: they differ greatly in some circumstances from the observations of both Hippocrates and Sydenham; yet in many things they are not dissimilar. Query, May not all the differences that are to be found, be accounted

counted for from the uncommon circumstances of worms, and from the condition of those in whom the severest symptoms were found? As to the first, from the severe symptoms that we frequently meet with in our practice occasioned by worms lodged in the primæ viæ, and from what I have known happen from worms formed and lodged in the cellular substance below the skin in a human body, I am of opinion, that the answer is not difficult. To the above I may add, what is well known; that such as are badly lodged, ill-clothed, and poorly fed, suffer most from epidemic fevers.

That the reader may be the better enabled to form a judgment, let him compare several of the symptoms, as they are to be found in the above authors.

Perhaps it may prove agreeable to some of my readers, to give a brief account of the country and manners of the inhabitants in the particular time in which each of the authors lived and practised; to take notice of each of their practice, with respect to medicines or applications, as far as it could affect the course of diseases; as also of the diet of the sick, considered in the same light.

As to the country of Hippocrates, it was Greece; a warm climate, generally a pure, temperate, and healthful air, a fertile soil, and pleasant country. Temperance and simplicity of manners is the character of the age in which he lived; nor was riot and debauch known to those happy sons of liberty who inhabited the charming regions of Greece: a lucky circumstance to the observer, who with as great ability as ever physician possessed, carefully attended to the condition of the sick, and has faithfully related the history and event of the disease. Nor did he stop here: physicians, he knew, could reap little benefit from particular cases. With a masterly hand he digested his observations, drawing from them with judgment such maxims as he perceived would be of most use to his successors. He published them in form of aphorisms, prognostics, &c. Neither has he been deceived with regard to their utility; the ablest physicians of every age, as well as the present, have followed him as a sure guide to direct them in judging of diseases.

Suffice it here to observe in general, that his practice in fevers was such as could occasion

caſion little diſturbances in the diſeaſe : the ſame may be ſaid of the diet which he ordered in fevers.

From the above I may warrantably conclude, that his obſervations are the moſt natural, and the beſt that ever were publiſhed.

Dr. Sydenham was a native of Britain, and his practice was moſtly in London and its environs. This climate and country is ſo well known, that I need not deſcribe it. The age in which he lived could not boaſt of that ſimplicity of manners and integrity of life which prevailed in Greece during the time of Hippocrates. Riches had introduced luxury into England ; and the giddy reign of Charles II. greatly favoured intemperance, riot, and debauch. Hence the minds of men were diſordered, and their bodies debilitated ; nor is it eaſy in ſuch diſtracted times to prevent intemperance even in patients under diſeaſes. This, no doubt, might occaſion ſome irregularity in diſeaſes, and particularly in fevers. Beſides this, Sydenham ſeems to have ſet out in practice without the advantage of a liberal education in his profeſſion : hence are to be derived his miſ-

takes as to fevers, the complaints he makes of the impossibility of judging of fevers in the beginning of epidemical constitutions, and the fatal errors which he acknowledges these occasioned. But it is only in these that he is reprehensible : in the diseases that are easily known and readily distinguished from one another, such as the whole class of inflammatory fevers, and several other diseases, he has shewn himself an able observer, as well as successful practitioner. Had he been acquainted with the works of the ancients, and known the progress they had made in observing diseases, it might have saved him much trouble, and perhaps he had thereby been enabled to improve the art of healing to a greater degree than he has done.

Ignorant of the ancients, and despising his contemporaries, prompted by genius, and possessed of the talents of an observer, he set out to study nature with care and application ; and in this he succeeded. To cure diseases was his constant aim ; his assiduous application of medicines hindered his observing the regular course of diseases, and the happy exit so often brought about by nature without any assistance from art.

Thus

Thus a diarrhœa, which Hippocrates looked on as a critical and salutary evacuation, Sydenham regards as a dangerous change in the fever. Nor does he leave the event to nature, but by the application of medicines removes the complaint: and certain it is, that in some cases this may be practised greatly to the relief of the patient.

However, such physicians who combat every appearance in diseases, have but a small chance of being acquainted with the salutary efforts of nature. Of this kind is Sydenham's practice. Ignorant of what nature left to herself could effect in fevers, he believed that every fever needed the assistance of medicines, and could be removed by a certain method of practice; hence he ordered medicines in every occurrence; and the event, when salutary, was believed by him to proceed from his method of cure and medicines.

How far he was in the right, the happy few who attentively study nature, and have at heart the health and preservation of the lives of mankind, are alone able to determine.

As to the diet of the sick, it is in many cases very proper, and could occasion no alteration in the course of fevers.

Had Dr. Sydenham added particular cases in as great numbers as Hippocrates has done, we should have been better enabled to judge as to the justness of his reasonings and conclusions. His observations on the rise, course, and exit of epidemics, as well as their periodical returns and durations, should excite every physician to observe carefully.

Perhaps we may at last discover, that they are regular and stated. For these twenty years by-past preceding 1765, during which I have practised, I have observed no such regular succession of diseases, as Dr. Sydenham has described.

I shall conclude this article with observing, that Dr. Sydenham is at present, and has hitherto been esteemed an excellent practitioner; and if we except Hippocrates, he stands as yet unrivalled as an observer, not of nature, but of what art could effect.

Dr. Lancisi lived in Italy, and practised in Rome and the neighbourhood. This country as to climate, &c. resembles
Greece,

Greece, and, like it, was once the residence of the greatest of mankind, who were happy at home, and lords of the world abroad. But though unchanged the climate, air, and soil, what an unhappy reverse in the inhabitants! Here the people of old, reared up in liberty, had their minds free and happy, and their bodies vigorous and active; but in the days of our author, their degenerate posterity, filled with bigotry and superstition, were become puny and dastardly, miserable slaves of priests; and on the most wretched of these did the fevers prey. See the Observations.

Dr. Lancisi's observations serve to convince us, that by particular accidents the course of fevers may be so much changed as to render the knowledge of the kind difficult, and the ordinary methods of relief ineffectual; notwithstanding which, by attentively observing, the causes may be found out, and a method of cure discovered; both of which were effected by this ingenious author.

I cannot proceed without taking notice, that although the severity of the symptoms was so great as to occasion the name of Malignant to the fevers, yet many crises

were observed to happen in the manner as they are noted by Hippocrates.

I may likewise observe, that on considering the symptoms it appears more than probable, that some of the fevers into which the tertians changed, were petechial, others nervous.

Several observations were made by Lancisi before medicines were given; or a method of cure found out. From these we may gather the history of fevers accompanied with worms. When medicines were given with such success as to destroy the worms, or carry them out of the body, the fevers assumed their type, and many recovered. When the vermin could not be dislodged, they occasioned the death of the patients, by gangrenes or mortifications of the primæ viæ, &c.

As the above fevers are so uncommon, it is needless to give any account of the author's practice, or the diet of the sick.

I shall conclude this article by observing, that Lancisi was an universal scholar, well acquainted with his own art, and an accurate and judicious observer.

It seems now proper to inquire whether the classes of fevers, as in the preceding sheets, are to be found in the above authors.

As to the first class, they are all of them to be found accurately distinguished and described with great propriety by Hippocrates, precisely such as they occur in our practice; but several of them are undistinguished in Sydenham, and the whole of them confounded under the general title of Continual Fevers.

The second class of intermittents are to be found in both Hippocrates and Sydenham; and to the excellent observations of Hippocrates, Sydenham has added many new and useful ones of his own.

The third class, or eruptive fevers, is not to be found in Hippocrates as distinct fevers, but only as symptoms of fevers; and although Sydenham seems to have observed several of them, yet he believed them to be only continual fevers, partaking of the nature of such fevers as they happened to accompany in an epidemic; for instance, the variolous fever of 1667, 1668, and part of 1669, is no other than the petechial fever. Other instances might be given, but these the attentive reader will easily find out; nor need he expect any thing accurate on this class in Sydenham. Several of the moderns, on attentively observ-
ing

ing them, have found them to be distinct in the symptoms from the class of continual fevers, and have given us accurate descriptions of their course, and many useful practical observations.

The fourth class is as ancient as any accounts we have in medicine. They still bear the name given them by Hippocrates, who has left us many accurate, judicious, and useful observations on each of them; and on these Dr. Sydenham has shewn himself an accurate observer and able practitioner.

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